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16. Abstract

The Task II final report for 1974 of the Multidisciplinary Accident Investigation Team of the Maryland Medical-Legal Foundation, Inc. is presented. This report describes some preliminary findings emanating from a series of comprehensive, multivariate, statistical analyses of psycho-social data on fatally injured (N=74) and non-fatally injured (N=33) responsible (culpable) male drivers collected throughout the greater Baltimore metropolitan area over the seven-year period extending from 1968-74. The primary data-collection instruments employed were the Katz Adjustment Scales - R Forms (KAS) and the Maryland Medical-Legal Psychosocial Questionnaire (MMLQ). The complex interrelationships among psycho-social factors and demographic and situational variables such as age, alcohol involvement, and fatality status are explored and discussed, and tentative conclusions and recommendations are formulated. Further confirmation of the findings presented herein must await the accumulation of additional data to be collected and analyzed during the 1975 contract year.

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TASK II

Introduction

Task II, in the context of the present report refers, in the most general terms, to the <u>initiation</u> of a series of sophisticated and rather comprehensive statistical analyses of the psycho-social data collected over the entire span of this project (1968-74 and possibly beyond). In addition, part of the specifications for Task II included the preliminary reporting of certain of these analyses as a means of demonstrating the degree of progress thus far achieved.

The analyses performed to date are, of necessity, both preliminary and tentative for three major reasons:

- 1. New data are constantly being collected during the contract period of fiscal 1975. One of the major thrusts of the 1975 contract is the comprehensive analysis of all psycho-social (and certain other) data collected since the inception of this project.
- 2. Certain of the multivariate analyses proposed require rather large data pools to be substantively meaningful. Sufficient data have not yet been collected to perform these analyses appropriately.
- 3. The analyses envisioned for performance within the fiscal 1975 contract are well beyond the scope of the resources allotted during fiscal 1974.

The remainder of this report will provide an account of the progress achieved in each of the areas delineated in the fiscal 1974 contract under Task II. It will be noted in the course of this presentation that the performance of certain facets of this contract has been deferred (with the concurrence of the Contract Technical Manager) until fiscal 1975 for reasons altogether in the best interests of the research and of the Federal Government as sponsors of the research. These reasons pertain primarily to the unnecessary and meaningless duplication of effort. On the other hand, certain additional analyses not explicitly stated in the fiscal 1974 contract have been performed at the specific request of the Contract Technical Manager, and the results of these analyses are also summarized herein.

Progress Report

Under the Task II Methodology section of the fiscal 1974 contract, it is stated that:

The Contractor shall begin the process of analyzing data collected on the aforementioned cases. Pursuant to this goal, certain preliminary steps shall be taken:

- 1. The Contractor shall scrutinize, edit, and check the available data for completeness and accuracy preparatory to formal analysis ("cleaning up the data").
- 2. The Contractor shall devise systems for coding and/or quantifying information currently expressed in categorical or qualitative form. Approval of these devised systems shall be required of the Contract Technical Manager before the Contractor proceeds to Step 3.
- 3. The Contractor shall transfer all of the data onto punched cards preparatory to electronic data processing.

All of the above have been accomplished with respect to all of the psycho-social data in the files dating back to 1968. This has been a particularly tedious and time-consuming task. In the early years of this project, multivariate analyses of the type subsequently proposed were not envisioned, and the data were merely collected, recorded, analyzed, and forwarded to the sponsoring agency (NHTSA) according to then current specifications. Over the ensuing years, such specifications have changed in the light of new knowledge, and the data-collection forms employed have likewise undergone considerable modification and revision. Not only that, but many items of information now routinely collected were formerly not included. As a result, many such items of information have been irretrievably lost, and the "N's" available for the analysis of such items have been markedly reduced.

In order to ensure comparability of data over the entire time-span of the project, it was found necessary to recast all of the earlier-collected data into the most recently-revised questionnaire format -- a formidable undertaking. Fortunately, this task has now been completed, and all currently-collected data are being keypunched and transferred onto magnetic tape as soon as they are collected.

Specifications 4 and 5 under the Task II Methodology section of the fiscal 1974 contract are as follows:

- 4. The Contractor shall compute indices of range, dispersion, and central tendency univariately on all variables coded and processed.
- 5. The Contractor shall perform two-way and three-way cross-tabulations of variables and perform significance tests between groups subdivided on dimensions of special interest such as sex, being most responsible, presence of alcohol, etc.

The above requirements have been accomplished, and the important results are presented in a subsequent section entitled, Summary of Major Findings. It should be emphasized once again, however, that all of these analyses and results should be considered tentative and preliminary since they will be repeated on the basis of considerably larger "N's" as additionally-collected data continue to become available. Furthermore, certain of the more tangential or trivial items of information were not included in

these preliminary analyses for obvious reasons.

The final three specifications under the Task II Methodology section of the fiscal 1974 contract are as follows:

- 6. The Contractor shall intercorrelate (by means of the Pearson product-moment correlation coefficient (<u>r</u>) and its algebraic equivalents) all of the variables in a given realm (discipline) to elucidate interdependencies.
- 7. The Contractor shall seek to achieve greater understanding of (possible) underlying patterns within a given realm through the use of principal components analysis and/or factor analysis. Significant findings shall be reported.
- 8. The Contractor shall seek to achieve greater efficiency and conceptual simplicity through data reduction, again utilizing the techniques of principal components analysis and/or factor analysis.

With the concurrence of the Contract Technical Manager, the above three specifications have been deferred and incorporated within the specifications for the fiscal 1975 contract on the grounds that their performance prior to that time would be premature and not sufficiently definitive because of insufficient sample size. Instead, and at the request of the Contract Technical Manager, a wide variety of univariate and multivariate comparative analyses involving the <u>Katz Adjustment Scales</u> were substituted, albeit again on a preliminary basis. These analyses will be repeated and/or refined on the basis of a larger number of cases as such data continue to be collected.

Summary of Major Findings

I. Katz Adjustment Scales

Introduction. The Katz Adjustment Scales - R forms (KAS) has been one of the major data-collection instruments employed by the Baltimore multidisciplinary accident investigation team since its inception. Briefly, the KAS consists of 205 scaled items that permit a retrospective quantitative description, through an informant, of a subject's individual and social behavior. All items have been worded so as to focus on specific behaviors and thereby reduce the necessity for inference or judgment. Following brief, neutral direction by the interviewer, the informant rates the subject in terms of the 205 behavioral items comprising the scales. Originally designed to measure the prehospital and posthospital adjustment of psychiatric patients, the KAS provides scores on 19 cluster-analytically derived dimensions pertaining to psychiatric symptomatology as well as social activities. The recent availability of normative data obtained from a systematic random sample of male and female residents of a nearby Maryland county has greatly

increased this instrument's general utility.

In each case, the KAS was completed by an informant who was in close contact with the subject during the weeks and months prior to the accident. This was usually a spouse, parent, sibling, or other close relative. In accordance with standard instructions, informants were asked to describe the subject as he appeared to them during the prior few weeks. The task of completing the KAS was done early during the period of investigative contact in order to avoid any bias or guidance that the interviewer's subsequent questioning might inadvertently provide.

To date, three articles (1, 2, 3) involving findings based on the KAS have been published in major professional journals by the Baltimore team. Briefly, the most prominent and consistent finding has been that fatally-injured male drivers significantly differ, on the average, from a comparative normative sample on a variety of behavioral traits which may be subsumed under the general heading of <u>Social Obstreperousness</u>.

At the specific request of the Contract Technical Manager, means and standard deviations were computed for all 18 of the KAS scales subsequent to partitioning of the data in a variety of ways (older drivers vs. younger; fatal accidents vs. non-fatal; single vehicle vs. multiple vehicle; alcohol present vs. alcohol absent, etc.). In each of these analyses, only male drivers deemed responsible (or most responsible) for the related accident were included as requested.

Before summarizing the substantive results of these analyses, it is important to state a special caveat regarding the statistical tests of significance involved. Briefly, we consider neither the univariate nor the multivariate tests employed to be wholly appropriate. There are two primary but interrelated reasons for this: First, the 18 KAS scales show substantial intercorrelation, suggesting that there are at most only three or four independent sources of variance (factors) involved. Thus, many of the univariate tests of significance are redundant and true significance levels are indeterminate. Moreover, the presence of several highly intercorrelated variables weakens the power of the multivariate tests employed. Second, the large number of variables involved (eighteen) relative to the still modest number of cases available further reduces the sensitivity of the multivariate analyses.

The solution to the above problem is to achieve reduction of the number of variables involved by eliminating redundancy through factor analysis. Precisely such an approach is planned as part of the fiscal 1975 contract. Such an analysis has not yet been undertaken because of an insufficient number of cases to achieve definitive results. (Several authorities, e.g. references 4 and 5, suggest that the number of cases sampled should be not less than five times, and preferably ten times as great as the number of variables involved in the factor analysis.) It is anticipated that a sufficient number of cases will be available by the end of calendar year 1974. In the meantime, all analyses failing to establish group differences must be considered tentative and rather suspect unless and until they are confirmed by subsequent and more appropriate analyses.

Sample. Most of the analyses reported herein are based on a maximum sample size of 107 cases obtained over the six-year period from 1968-73. Certain analyses were based on a substantially fewer number of cases for the reasons previously given. All cases consisted of male drivers legally responsible for the accidents in which they were involved, and all accidents were serious in the sense that they either involved fatalities or had the potential for involving fatalities. For a detailed discussion of the geographic area sampled and the completeness and representativeness of the sample obtained, the reader is referred to the relevant section of the Task I report.

Summary of KAS Findings. Accompanying this report are appendices (bound computer print-outs) detailing the results of a large number of analyses involving the KAS. All of these analyses were performed to the specifications of the Contract Technical Manager. At his request, duplicate analyses were performed on 1972-73 cases only (N=56) as well as on all cases obtained between 1968-73 (N=107). As mentioned above, all analyses pertain to responsible male drivers only.

Cases were further subdivided by age (under $25 \ \underline{vs}$. $25 \ and up$), fatal \underline{vs} non-fatal, single vehicle \underline{vs} multiple vehicle, and the presence or absence of alcohol as a contributing factor. With respect to the latter dichotomy, alcohol was considered a factor in the fatalities if the blood alcohol level (BAL) exceeded 0.09.1 For non-fatally injured drivers, a report from the scene by a responsible investigator and/or an admission on the part of the driver himself that he had been under the influence of alcohol was required since determination of BAL's was not feasible in these cases. That a certain number of erroneous determinations may have occurred seems likely.

In addition to the contrasts noted above, scores of each of the sub-groups were compared with established population norms. Analyses were also performed involving selected sub-classifications, e.g., under 25 vs. 25 and up with respect to driver fatalities only.

In the paragraphs that follow, only the salient findings -- especially those that may be expected to withstand replication -- are discussed. The interested reader is referred to the accompanying appendices for the detailed analyses themselves as well as for verification of all statements made herein. In addition, only the salient results of the larger analyses involving cases from 1968-73 are discussed below, since there are essentially no contradictions between these findings and those based on 1972-73 cases only.

Perhaps the data may be most generally and relevantly summarized by stating that they continue to confirm, in virtually all important detail, the findings and conclusions previously reported and published by the Baltimore team. Most succinctly, these findings have been that fatally-injured responsible male drivers, on the average, differ from a comparable normative male population with respect to a number of social-psychological or behavioral characteristics. In brief, these drivers tend to be described by knowledgeable informants as having been more belligerent (Scale 1), verbally expansive (Scale 2), negative (Scale 3), suspicious (Scale 5),

^{1.} These analyses, like the later two and thre-way tabulations, had originally been performed with the BAL breakpoint between 0.10 and 0.11. At the request of the Contract Technical Manager, the KAS analyses were redone with the BAL breakpoint between 0.09 and 0.10. The tabular analyses retain the original breakpoint since the practical effect of this change is small but the volume of recomputation involved is considerable.

anxious (Scale 6), less withdrawn (Scale 7), and to show more psychopathology (Scale 8) and hyperactivity (Scale 12) than comparable normative males.

In addition to confirming the above, the present analyses were also aimed at attempting to elucidate differences between various subgroups, including non-fatally injured drivers, as mentioned earlier. The results of these analyses may be summarized as follows:

- 1. Non-fatally injured responsible male drivers (RMD's) do not appear to differ significantly from fatally-injured RMD's on the Katz Adjustment Scales. However, both groups significantly differ from the population norms. Three explanations are possible. The first, which is applicable to all situations where significant differences are not found (and which for this reason will not be subsequently mentioned), is that the KAS is not sensitive to real differences that exist between the groups. The second, alluded to earlier, is that the N's are too small (33 vs. 74) and the variables too many (eighteen) and too highly intercorrelated to permit sensitive statistical analysis. This is a possibility that will be explored further in future analyses to be performed during the fiscal 1975 contract year. The third (and most plausible) explanation is that the groups truly do not differ, since responsibility was held constant and whether or not the responsible driver was killed may have been merely a matter of luck and circumstance.
- 2. Combining subgroups on the fatally injured vs. non-fatally injured dimensions since this was found to be irrelevant where RMD's for serious or potentially serious accidents are concerned, alcoholinvolved drivers (N=63) were next contrasted with non-alcohol involved drivers (N=44). The alcohol-involved group was found to be significantly higher (univariately) on belligerence (Scale 1) and to have fewer free-time activities (Scale 16 - higher scores reflect fewer free-time activities) than the non-alcohol involved group. In addition, the alcohol involved group was significantly higher on Scales 15 and 18, both of which refer to the informant's dissatisfaction with the subject's performance of socially-expected activities. It should be noted that the multivariate analysis (T2) reached significance (.05 level) as well, and that the more appropriate multivariate analyses anticipated in the future should also achieve it. Comparisons with the normative population revealed that while both groups demonstrated significant mean differences, those of the alcohol-involved group were primarily in the areas of Belligerence (Scale 1), Verbal Expansiveness (Scale 2), and Negativism (Scale 3), while those of the non-alcohol involved group were in the general areas of increased social activity and extraversion (Scales 15, 16, and 18). The anticipated future analyses should resolve the many interesting questions posed by these results.
- 3. Collapsing sub-groups on both the alcohol <u>vs.</u> non-alcohol and the fatality <u>vs.</u> non-fatality dimensions, single-vehicle (N=79) <u>vs.</u> multiple-vehicle (N=28) RMD's were compared. No significant mean differences were found, either univariately or multivariately. We suspect that this is due to the fact that only responsible drivers

were included in all analyses. Of course, both groups were found to differ significantly from the population norms on most of the KAS variables noted previously.

- 4. Next, data were combined across all of the foregoing classifications to achieve a contrast of RMD's under 25 years of age (N=42) with those 25 years of age and older (N=65). Once again, no significant mean differences on any of the scales were found, either univariately or multivariately. This may be a very important finding. While both groups differ from the population norms, the absence of group differences suggests that the psycho-social and behavioral characteristics of RMD's involved in serious accidents are not a function of age.
- 5. Finally, a wide variety of similar analyses were performed on smaller groups sub-divided by two or more of the above dichotomous classifications simultaneously. The results of these analyses are essentially trivial in the sense that their outcome is essentially predictable on the basis of the foregoing "main effects" analyses. Nonetheless, they were performed in the interest of completeness. The interested reader is referred to the submitted appendices for detailed results.

Before leaving this section, it might be well to comment briefly on the above findings as well as to anticipate some possible criticisms. It will be recalled that most of the analyses yielding highly statistically significant results involve the comparison of specified sub-groups with available population norms. Relatively few of the between sub-group comparisons have yielded statistically significant results. In view of the consistency of these findings, the criticism might be raised that the normative data are not appropriate for comparative purposes, i.e., that other samples of drivers, not just RMD's involved in serious accidents, would be found to differ from the available norms. If this were indeed true, then our findings would be largely invalidated. The relative absence of inter-group differences when groups are classified according to age, number of cars involved, driver fatality, etc., would seem to lend further support to this criticism.

Nonetheless, while admitting the possibility of such a state of affairs, we do not believe it to be the case. There are several reasons for this:

- 1. The present group of RMD's appears considerably deviant from the general population on the basis of two important objective criteria: 1) presence of alcohol while driving and 2) number of previous Motor Vehicle Administration citations. Since they are already known to be deviant on these two completely objective indices, why should it be surprising to find them deviant on other psycho-social or behavioral indices?
- 2. Differences between sub-groups are <u>not</u> totally absent and should actually become more statistically significant with the application of more appropriate statistical analyses made possible by

larger samples of subjects. Not only that, but the subclassifications herein employed are almost certainly less than 100% accurate and/or optimal, conditions which militate against the finding of significant group differences. For example, degree of alcohol involvement could not be accurately determined in all cases, and in any event, the subdivision of groups at the BAL 0.09 breakpoint (or age at the 25 years and up breakpoint) has no mathematical or physiological justification. These are truly continuous variables that require analyses cognizant of that fact. It is anticipated that future analyses will be more appropriate in this respect.

The finding that differences between sub-groups, if they exist at all, are probably not very large and of limited practical significance supports a tentative theory regarding causation in automobile crashes that is both general and elegantly simple at one and the same time. In its most general form, this theory states that a class of important proximal causes of automobile crashes consists of the (current) psycho-social and/or behavioral characteristics of the driver. Such characteristics, which may or may not be relatively enduring, are essentially independent of (uncorrelated with) such previously implicated factors as age and alcohol involvement in the population of RMD's involved in serious accidents. Of course, such characteristics are correlated with age (inversely) and alcohol abuse (directly) in the general population at large, as would be expected. However, the fact that younger RMD's involved in serious crashes do not differ from older RMD's on these behavioral characteristics, together with the fact that alcohol-involved RMD's differ but little from non-alcohol-involved RMD's, suggests that the most important thing RMD's have in common (on the average) is not age or alcohol involvement but, rather, the implicated behavioral characteristics. This is further reinforced by the finding (also alluded to later in this presentation) that many non-alcohol related RMD's admitted to drinking while driving on other occasions. Thus, in these cases at least, alcohol could not be directly implicated as a cause of their accidents; however, the presence of personality or behavioral characteristics that would permit them to drive while under the influence of alcohol might be. At the very least, such a theory deserves sympathetic consideration and further investigation within the scientific community.

II. Two- and Three-Way Tabulations and Analyses

Introduction. As noted earlier, one of the specifications of Task II involved the performance of two- and three-way cross-tabulations of important psycho-social, demographic, and other variables in order to elucidate possible interrelationships. Such analyses were performed to the explicit specifications of the Contract Technical Manager, and the most important results of these analyses will be summarized in the sections that follow. In addition, bound computer print-outs of all such tabulations and analyses

accompany this report and are the basic source of all statements made herein.

A brief explanation of the tabulations and analyses is in order. To begin, all items of information discussed have been taken from the Maryland Medical-Legal Psychosocial Questionnaire (and Supplement) and are numbered in accordance with that document. Where possible, a completed questionnaire was obtained for each case studied. Unfortunately, as mentioned earlier, this instrument has undergone considerable modification and revision over the years, and certain items of information have been obtained only during the most recent contract year. For this reason, many desirable analyses have been precluded or obtunded owing to small sample sizes.

In accordance with contract specifications, one-way frequency distributions have been provided for all variables (items of information). Wherever quantitative variables are involved, measures of central tendency (means) and dispersion (standard deviations) are also provided. In addition, all variables have been further dichotomously subdivided in two ways simultaneously: 1) by degree of alcohol involvement, i.e., present or absent (or, in the case of the fatally-injured drivers, by BAL \leq .10 vs. BAL \geq .11)²; and 2) by age, with age 15-24 vs. age 25 and up. Thus, each table in the accompanying print-out displays four columns of frequency and percentage frequency distributions reflecting the foregoing double dichotomy, as well as a fifth column providing the overall total distribution or one-way tabulation alluded to earlier.

Where possible, appropriate tests of significance between pairs of columns are also provided. For quantitative variables, these consist of one-way analyses of variance yielding F-ratios. For qualitative or categorical variables, these consist of 2 x 2 Chi-Square contingency table analyses. For qualitative variables involving more than two categories, dichotomization is achieved by combining certain of the categories. The row (or rows) making up one segment of this dichotomy is indicated for each analysis following specification of the degrees of freedom (DF). In general, these analyses follow the following sequence: 1) younger drivers (age 15-24) with alcohol absent (BAL \leq .10) vs. older drivers (age 25 and up) with alcohol absent; 2) younger drivers with alcohol absent vs. younger drivers with alcohol present (BAL \geq .11); 3) older drivers with alcohol absent vs. older drivers with alcohol present; and 4) younger drivers with alcohol present vs. older drivers with alcohol present.

At the request of the Contract Technical Manager, all of the above analyses were performed separately for 1) fatally-injured drivers; and 2) non-fatally-injured drivers. As before, all analyses reported were restricted to responsible male drivers (RMD's) only. It should be borne in mind that owing to the relatively small number of non-fatally-injured drivers available for analysis, statistical tests of significance were either weak or precluded. For this reason, all findings regarding non-fatally-injured drivers should be regarded as extremely tentative. One final point of great importance: data concerning non-fatally-injured drivers were frequently based on self-report. Therefore, the veridicality of the response obtained may vary with the particular item of information sought,

^{2.} See footnote 1, page 5.

especially in cases involving pending litigation. The high incidence of refusals and missing data should also be taken into consideration before any interpretative conclusions are reached.

Summary of Important Findings: Fatally-Injured Drivers

- 1. Q5 Only about 20 per cent of the drivers studied were non-white.
- 2. Q12A Non-alcohol-involved older drivers seem more likely to be first-born than alcohol-involved older drivers.
- 3. Q12B Younger drivers with alcohol involvement seem to come from larger families than younger drivers without alcohol involvement.
- 4. Q38D A considerable number of all RMD's (one-fourth to one-third) report recent marital difficulties due to alcohol.
- 5. Q42 Over 41 per cent of all RMD's report changes in relationships with significant others in the six-months prior to the accident.
- 6. Q43 About 30 per cent of all RMD's report recent major difficulties with significant others.
- 7. Q49 Older drivers with alcohol absent have higher occupational statuses than older drivers with alcohol present.
- 8. Q52 About 40 per cent of all RMD's have had job changes within the last 12 months.
- 9. Q59D About 22 per cent of all RMD's were said to be excessive ly active and/or aggressive during childhood.
- 10. Q61 Older drivers with alcohol absent tend to have better mental health than older drivers with alcohol present.
- 11. Q76C Over 32 per cent of all RMD's were considered impulsive.
- 12. Q76D Nearly 60 per cent of all RMD's were described as not being careful and methodical.
- 13. Q80 Only 11 per cent of all RMD's were non-drinkers.
- 14. Q84 In nearly 25 per cent of all RMD's drinking was said to sometimes produce a loss of emotional control.
- 15. Q86A and B Nearly 40 per cent of all RMD's were said to drink when anxious or upset or when depressed or down in the dumps.

- 16. Q87B Very important: Fifty-five per cent of all RMD's were said to either occasionally or frequently drink while driving, and this percentage did not significantly differ regardless of age or BAL at time of the fatal accident.
- 17. Q93 Only about three per cent of all RMD's ever received mediacal treatment for the effects of drinking.
- 18. Q94 Alcohol-involved older drivers smoked significantly more than non-alcohol-involved older drivers.
- 19. Q98 Non-alcohol-involved older drivers were said to be more religious than alcohol-involved older drivers.
- 20. Q107 Among non-alcohol involved drivers, younger drivers were more likely to have passengers present in the car.
- 21. Q114 Over 40 per cent of all RMD's were said to have been fast drivers or very fast drivers.
- 22. Q115 About 25 per cent of all RMD's were said to take chances or often take chances.
- 23. Q117 More than 60 per cent of all RMD's were said to never use seat belts, and this was true of over 95 per cent of older drivers with alcohol involvement.
- 24. Q118 Nearly 95 per cent of all RMD's were not wearing seat belts at the time of the accident.
- 25. Q122 Nearly 50 per cent of all RMD's were said to have shown no concern with regard to traffic violations, and this was true of 75 per cent of older drivers with alcohol involvement.
- 26. Q123 About 27 per cent of older drivers with alcohol involvement were said to have been involved in other accidents while under the influence of alcohol.
- 27. Q124C About 39 per cent of alcohol-involved older drivers were said to have been in trouble with the law as adults.
- 28. Q125 Over 30 per cent of all RMD's were said to have had legal convictions.
- 29. QS12 Nearly 20 per cent of all RMD's were said to have had one or more license suspensions.
- 30. QS15 Over 45 per cent of all RMD's have had one or more prior speeding convictions.
- 31. QS114 Older drivers without alcohol involvement had lower revised alcoholic classifications than did older drivers with alcohol involvement.

Summary of Important Findings: Non-Fatally Injured Drivers

- 1. Q2 Younger drivers with alcohol absent appear to be significantly taller than younger drivers with alcohol present.
- 2. Q5 Nearly 24 per cent of all RMD's were non-white.
- Q30 Older drivers with alcohol absent had more years of education than older drivers with alcohol present.
- 4. Q76D Over 68 per cent of all RMD's were said not to be careful and methodical.
- 5. Q84 Drinking was said to sometimes produce loss of emotional control in over 32 per cent of all RMD's.
- 6. Q87B Very Important: Over 65 per cent of all RMD's were said to occasionally or frequently drink while driving.
- 7. Q93 Approximately 10 per cent of all RMD's report medical treatment for the effects of drinking.
- 8. Q101 Over 10 per cent of all RMD's made suicide threats at one time or another.
- 9. Q107 Younger drivers seem more likely to have passengers present than do older drivers, and younger drivers with alcohol present are more likely to carry passengers than younger drivers with alcohol absent.
- 10. Q110 In more than 60 per cent of all cases, the purpose of the trip at the time of the accident was social.
- 11. Q114 Nearly 50 per cent of all RMD's were described as fast drivers or very fast drivers.
- 12. Q117 Over 60 per cent of all RMD's were reported never to use seat belts.
- 13. Q118 Nearly 90 per cent of all RMD's were not wearing seat belts at the time of the accident.
- 14. Q123 Over 17 per cent of all RMD's were reported to have been in other accidents while under the influence of alcohol.
- 15. Q124B Nearly 50 per cent of all RMD's were said to have been in trouble with the law as a teenager.
- 16. Q125 Over 50 per cent of all RMD's were said to have had one or more prior legal convictions.

- 17. Q126 Over 25 per cent of all RMD's were said to have had one or more prior arrests for drinking.
- 18. QS12 Over 25 per cent of all RMD's had had one or more previous license suspensions.
- 19. QS15 Nearly 60 per cent of all RMD's had had one or more previous speeding convictions.
- 20. QS18 About 40 per cent of all RMD's have had one or more previous accidents.
- 21. QS114 Regardless of age, drivers with alcohol present have higher revised alcoholic classifications than do drivers with alcohol absent.

Implications for ASAP and NHTSA Programs in General

In view of the foregoing analyses and findings, it is difficult to escape the conclusions that attitudes, personality variables, and psychosocial factors play a significant role in the causation of serious traffic accidents. Interestingly enough, such a conclusion has not been popular in recent years within prominent accident research circles. We speculate that the reasons for this unpopularity reflect political and philosophical trends within the culture rather than any lack of empirical data. As political philosophies ebb and flow, so does the acceptability of certain "scientific" explanations.

Nothing in the foregoing should be construed as a denial of the immense importance of chance, mechanical, and physical-environmental factors in the overall picture of traffic accident causation. Indeed, with respect to any given accident, such factors can be expected to be paramount. Viewed in the aggregate, however, such factors hardly qualify as "causes" since they do not seem to be strongly related to accidents (or the absence of them) in a predictive sense. For example, what is the predictive value of regular mechanical maintenance vs. no such maintenance in predicting whether or not a particular automobile will be involved in an accident? We suspect that the relationship would be very slight, indeed, and that any relationship found could be better explained on the basis of an habitual attitude of "carelessness" on the part of the drivers neglecting regular maintenance. Numerous similar examples could be given, but the point is already obvious.

Three objections, none of which have any particular merit, have frequently been raised against the "psycho-social factors" hypothesis. The first of these has to do with the relatively low consistency with which accident perpetrators (or victims) have repetitions of their accidents across different time frames. It is argued that if the phenomenon (accidents) itself has so little reliability, how can it be predicted? Actual-

ly, this objection, apparently so devastating on the surface, has relatively little merit when carefully considered for the following five reasons:

- 1. Accidents are a comparatively rare event, even among those who, wittingly or unwittingly, habitually court them. Thus, there could not be expected to be a high degree of consistency across different time frames because accidents rarely occur even among persons at comparatively high risk.
- 2. The very fact of having one accident may alter the behavior of the victim for subsequent (especially recent subsequent) time frames. To provide a reductio ad absurdam, what is the consistency of successful (completed) suicide across different time frames? Does anyone seriously doubt that psycho-social factors play an important role in the etiology of suicide simply because successful suicides do not provide us with convenient repetitions of their self-destructive acts?
- 3. The consistency criticism embodies within it the implicit assumption that the best predictor of a future event is the fact that it has occurred in the past. This, of course, is not always true, especially if the event itself may be expected to change the behavior of the people involved or in some way alter the probabilities of its future occurrence.
- 4. Obviously, if the lack of accident consistency is fatal to the psycho-social factors hypothesis, it must be equally fatal to other attempts to uncover correlated or predictive factors regarding accidents from other disciplines or data sources. In its extreme form, this view would hold that no research along these lines should ever be pursued.
- 5. Finally, there is abundant evidence that a certain degree of consistency across different time frames <u>does</u> hold for accident data. It may be that the problem here is more one of inadequate reporting and record-keeping than of unreliability of the phenomena involved.

A second objection that one frequently encounters concerning the psychosocial factors hypothesis in accident causation is that it is merely a variation of the old (and discredited?) "accident proneness" model. The latter model, it is alleged, requires that "good drivers remain good drivers and bad drivers remain bad drivers." While we doubt this is indeed a requirement of the accident proneness model, we are certain that it is not a requirement of the psycho-social factors model. All that is being hypothesized is that a constellation of traits or states characteristic of a person at a given point in time predispose him to an increased likelihood

^{3.} Except perhaps for research relating accident frequency to topography and other ambient environmental conditions.

of accident, provided he is so exposed. Such an hypothesis does not require the permanence of such traits or states, although in some cases they may be relatively enduring, and it implicitly recognizes the role of impersonal and chance factors in accident causation.

A third objection to the psycho-social factors hypothesis is typically made by those who grant the model a certain slight degree of validity. These critics (and they are legion) maintain that the degree of predictive validity achieved (or achievable?) is so small as to preclude any practical application of findings in the individual case. Stated another way, they maintain that the "false positive" rate is so high as to constitute an injustice to those drivers identified as being "at risk" but not subsequently becoming involved in any accidents. Depending upon one's value judgments, this objection does have a certain amount of superficial reasonableness about it. Under critical examination, however, it fails to hold up. To understand fully the reasons for this, let us consider some completely analogous situations where similar "injustices" are routinely perpetrated:

- 1. The office of the Surgeon-General officially condemns cigarette smoking and seeks to deprive millions of people of what may be their fondest pleasure on the basis of a real but statistically infinitisimal relationship between smoking and the subsequent development of lung cancer and other diseases. (Goldstein (6) reports a median product-moment <u>r</u> of .007 between smoking and lung cancer.)
- 2. Physicians exhort their patients to alter drastically their dietary habits on the basis of correlations (between serum cholesterol level and the subsequent development of heart disease) which are so small as often to defy replication from study to study.
- 3. Aircraft pilots are habitually grounded on the basis of physical findings whose relationship to the likelihood of a subsequent ac-'cident has probably never even been demonstrated.

Other examples similar to the above could be given. In each instance, the correlation between presumed precursor and the outcome of interest is probably less (in some cases markedly less) than the often-demonstrated correlation between psycho-social factors and subsequent accident involvement (cf. 6). It should thus be obvious that the reasons effective countermeasures programs based on demonstrated risk-factors are not taken in the automotive realm have to do with (current) social and political attitudes rather than the lack of any such relationships. As long as the indiscriminate licensing of persons is held to be, in effect, an inalienable right, little progress in accident control may be anticipated.

Fortunately, there is some evidence that the tide of both official and public opinion may be turning. The continued operation of the ASAP program seems a step in the right direction, since it explicitly recognizes the concept of the dangerous or high-risk driver. In this connection, however, our data lead us to suspect that alcohol involvement is

merely a correlate of dangerous driving (and other self-destructive behaviors) rather than a primary cause. Still, if ASAP merely provides an effective mechanism whereby the dangerous driver may be identified and restrained, its existence would be more than justified.

It would seem axiomatic that any proposed countermeasures program must have broad public acceptance in order to be effective. For example, there is mounting evidence that the Surgeon-General's campaign against smoking has been of only limited and transitory effectiveness, and that the potential effectiveness of the seat-belt ignition inter-lock system on late model cars has been largely circumvented. By analogy, it would seem that unless and until there is sufficient public sentiment in favor of removing the high-risk driver from the highway scene, evidence such as that provided in the present report will remain of merely academic interest.

Conclusions and Recommendations

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Psycho-social factors play an important (though certainly not exclusive) role in the etiology of serious motor vehicle accidents. The hypothesis (and some evidence) has been put forth that some previously implicated correlates, viz., age, sex, and alcohol usage, are important only by virtue of their correlation with more primary (in the causative sense) psycho-social factors. The degree of relationship present between psycho-social factors and traffic accidents is probably at least of the order of magnitude found in several other areas between precursor and outcomes and for which presumed countermeasures have been undertaken.

Attempts were made to find inter-relationships between the KAS scores and variables from the structured portion of the psychological evaluation. The results were more remarkable for the absence of any relationships rather than their presence. For example, none of the KAS measures that had significantly differentiated these male driver fatalities from the normative population was significantly correlated with either age or presence or amounts of blood alcohol concentration at autopsy. One might reasonably have expected the social obstreperousness factor to be more prominent among the young driver fatalities, as well as among those with positive blood alcohol levels, but such was not the case. One interpretation of this finding was that, old or young, drinking or non-drinking, the socially obstreperous driver is at an increased risk of becoming a fatality.

In the aggregate, these findings are consistent with earlier investigations that relate aggressiveness and emotional instability to accident involvement. The studies present evidence in a quantitative and standardized form, that certain definable behavioral traits are more prominent among male drivers involved in fatal accidents than among men in general.

In a free society, the people must ultimately decide through their elected and appointed representatives whether these relationships and attendant risk factors are sufficiently large (and the associated disadvantages sufficiently small) to warrant proceeding with effective countermeasures programs.

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Maryland Medical-Legal Foundation, Inc. - Final Report 1973

Appendix I
Frequency Distribution Tables
Fatal Responsible Male Drivers

Task II

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MARYLAND MEDICAL-LEGAL FOUNDATION, INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

~	5	R	•	~	_
-	7	п	44	_	

	i '	BAL	LE .1(BAL	GE .11		TOT	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
CAUCASIAN	18	75.0	Į 36	81.8	13	76.5	Į 31	81.6	98	79.7
NEGRO	5	20.8	į 8	18.2	4	23.5	<u> </u>	18.4	24	19.5
ASIAN (ORIENTAL)	1	4.2	ţ o	0.0	0	0.0	į o	0.0	1	8.0
AMERICAN INDIAN	0	0.0	į o	0.0	O	0.0	į o	0.0	0	0.0
OTHER	i o	0.0	i o	0.0	i o	0.0	i o	0.0	0	0.0
TOTAL RESPONSES	24	100.0	44	100.0	17	100.0	38	100.0	123	100.0
NO RESPONSE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NOT APPLICABLE	i o	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	I 24		44		17		38		123	

TESTS OF SIGNIFICANCE

2 X 2 CHÍ-SQUARE =	VS. BAL LE .10 AGE 25 &UP 0.122 FOR 1 DF (1)
BAL LE .10 AGE 15-24	VS. BAL GE .11 AGE 15-24
2 X 2 CHI-SQUARE =	0.068 FOR 1 DF (1)
BAL LE .10 AGE 25 &UP	VS. BAL GE .11 AGE 25 BUP 0.066 FOR 1 DF (1)
BAL GE .11 AGE 15-24	VS. BAL GE .11 AGE 25 &UP
2 X 2 CHI-SGUARE =	0.005 FOR 1 DF (1)

MARYLAND MEDICAL-LEGAL FOUNDATION, INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

01	24	AT	RTH	RANK

	<u> </u>	BAL	LE .10		<u> </u>	BAL	GE .11		TOT	AL
RESPONSE	I AGE	15-24 PCT	AGE 2	5 AUP PCT	AGE	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
1	5	33.3	Į 10	52.6	2	18.2	Į 5	20.0	22	31.4
2	8	53.3	į 5	26.3	<u> </u>	36.4	1 7	28.0	24	34.3
3	1	6.7	į 2	10.5	3	27.3	<u> </u>	20.0	11	15.7
4	i o	0.0	<u> 1</u>	5.3	. 1	9.1	<u> </u>	12.0	5	7.1
5	0	0.0	į o	0.0	0	0.0	<u> </u>	8.0	2	2.9
6	1	6.7	į o	0.0	1	9.1	I 1	4.0	3	4.3
7	i o	0.0	į o	0.0	i o	0.0	I o	0.0	0	0.0
8	jo	0.0	į o	0.0	0	0.0	I I 1	4.0	1	1.4
9	į o	0.0	į o	0.0	į o	0.0	I o	0.0		0.0
10	i o	0.0	<u> </u>	5.3	0	0.0	I I 1	4.0	2	2.9
MORE THAN 10	0	0.0	į o	0.0	0	0.0	I o	0.0	0	0.0
***	<u> </u> 		1 		ļ 		I 			
TOTAL RESPONSES	15	62.5	19	43.2	11	64.7	25	65.8	70	56.9
NO RESPONSE	9	37.5	25	56.8	6	35.3	13	34.2	53	43.1
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0	0.0	O	9.0
TOTALS	24		44		17		38		123	
	i.			,	1				i	

TESTS OF SIGNIFICANCE

BAL LE 10 AGE 15-24 VS. BAL L 16 AUL 25 17

2 X 2 CH1-SQUARE T 0.604 FOR 1 OF (1)

BAL LE 10 AGE 15-24 VS. BAL GE 11 AGE 15-24

NOT PERFORMEL - EXPECTED FREQUENCY LESS THAN 3

BAL LE 10 AGE 25 8UP VS. BAL GE 11 AGE 25 AUF

2 X 2 CH1-SQUARE T 5.766 FOR 1 DF (1)

BAL GE 11 AGE 15-24 VS. BAL GE 11 AGE 25 8UP

NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3

MARYLAND MEDICAL-LEGAL FOUNDATION. INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

G12B NL	IMBER	OF	CHILDREN	Tiv	FAMIL	Y
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ന്നെ അ അ അ ത ത ത അ ത ത ത അ അ അ അ ആ 1										
	[LE .10		[GE .11		TOT	AL
RESPONSE	L AGE	15-24 PCT	AGE 2	5 RUP	AGE N	15-24 PCT	AGE 2	5 LUP 1	N	PCT
1	1	6.7	Į 4	21.1	0	0.0	Ţ 1	4.0	6	8.6
2	5	33.3	<u>i</u> 6	31.6	1	9.1	į s	8.0	14	20.0
3	4	26.7	<u> </u>	15.8	2	18.2	į 3	12.0	12	17.1
4	3	20.0	i o	0.0	3	27.3	į 6	24.0	12	17.1
5	1	6.7	į 1	5.3	1	9.1	‡ 5	20.0	8	11.4
6	0	0.0	1	5.3	3	27.3	Î 4	16.0	8	11.4
7	1	6.7	į ż	10.5	0	0.0	į o	0.0	3	4.3
8	i o	0.0	į o	0.0	1	9.1	‡ 3	12.0	4	5.7
9	j o	0.0	. 1	5.3	į o	0.0	į o	0.0	1	1.4
10	i o	0.0	į 1	5.3	0	0.0	į o	0.0	1	1.4
11	0	0.0	į o	0.0	į o	0.0	1 1	4.0	1	1.4
MORE THAN 11	Ü	0.0	Î O	0.0	Î O	0.0		0.0	0	0.0
*** *** *** *** *** *** *** *** *** **					i					
TOTAL RESPONSES	15	62.5	19	43.2	11	64.7	25	65.8	70	56.9
NO RESPONSE	9	37.5	25	56.8	6	35.3	13	34.2	53	43.1
NOT APPLICABLE	0	0.0	0	0.0	Î 0	0.0	U .	0.0	0	0.0
TOTALS	24		44		17		36		123	
MEAN		3.13		3,63	Î Î	4.64		4.88	<u>.</u> I	4.13
s 0		1,51		2.83	I I	1.75		2.22	I I	2.27

TESTS OF SIGNIFICANCE

MARYLAND MEDICAL-LEGAL FOUNDATION: INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

G38D MARITAL DIFFICULTY- HANDLING ALCOHOL

		BAL	LE .10)	<u> </u>	BAL	GE. •11		T0 T	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 AUP I PCT	N	PCT
NO	0	0.0	1 13	92.9	2	100.0	1 12	63.2	27	75.0
YES	1	100.0	İ 1	7.1	0	0.0	İ 7	36.8	9	25.0

TOTAL PESPONSES	1	4.2	14	31.8	1 2	11.8	19	50.0	36	29.3
NO RESPONSE	5	37.5	25	56.8	6	35.3	13	34.2	53	43.1
NOT APPLICABLE	14	58.3	5	11.4	9	52.9	6	15.ช	34	27.6
TOTALS	24		44		17		3 8		123	

TESTS OF SIGNIFICANCE

MARYLAND MEDICAL-LEGAL FOUNDATION, INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

042 CHANGE	IN REL	ATIONS	HIP W/	SIGNIF	CANT	INDIVI	DUALS	WITHIN	6 MON	THS
	i I	BAL	E .10			BAL	GE .11		TOT	AL
RESPONSE	Î AGF.	15-24 PCT	AGE 2	5 SUP PCT	AGE N	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
NONE	i e	61.5	1 12	66.7	3	33.3	Į 15	60.0	38	58.5
NEW GIRL/BOY FR	İ 2	15.4	i o	0.0	3	33.3	į 1	4.0	6	9.2
PLANS ENGAGE . MR	i 2	15.4	į 2	11.1	. 0	0.0	į 2	8.0	6	9.2
CHG PLNS ENG.MR	Î O	0.0	io	0.0	i o	0.0	į o	0.0	0	0.0
SEPARATION	i o	0.0	1	5.6	<u> </u>	22.2	1 3	12.0	6	9.2
PREGNANCY	i o	0.0	i o	0.0	1	11.1	į o	0.0	1	1.5
DEATH	Îυ	0.0	į i	5.6	0	0.0	1 1	4.0	į 2	3.1
OTHER	Î 1	7.7	i 2	11.1	0	0.0	i 3	12.6	6	9.2
TOTAL RESPONSES	1 13	54.2	18	40.9	9	52.9	25	65.8	i 65	52.6
NO RESPONSE	1 11	45.8	26	59.1	8	47.1	13	34.2	58	47.2
NOT APPLICABLE	U	0.0	0	0.0	į C	0.0	. 0	0.0	0	0.0
TOTALS	Î 24		44	~ * * * * *	17		38		I 123	. (C) (C) (C) (C) (C) (C) (C) (C) (C) (C)

TESTS OF SIGNIFICANCE

2 X 2 CHI-SQUARL =	VS. BAL LE .10 AGE 25 8UP 0.007 FOR 1 DF (1)
BAL LE .10 AGE 15-24	VS. BAL GE .11 AGE 15-24
2 X 2 CHI-SQUARL =	0.752 FOR 1 DF (1)
BAL LE .10 AGE 25 &UP 2 X 2 CHI-SQUARE =	VS. BAL GE .11 AGE 25 &UP 0.015 FOR 1 DF (1)
BAL GE .11 AGE 15-24	VS. BAL GE .11 AGE 25 8UP
2 X 2 CHI-SQUARE =	0.970 FOR 1 DF (1)

MARYLAND MEDICAL-LEGAL FOUNDATION. INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

043 RECENTLY	EXPERI	ENCE	MAJOR	DIFFIC	ULTIE	S WITH	SIGNI	FICANT	PERSO	NS
*************		BAL L	£, .10	1		BAL	GE .11]	TOT	AL
RESPONSE	AGE 15	-24 PCT	AGE 25	BUP PCT	AGE N	15-24 PCT	AGE 2	S &UP PCT	N	PCT
NO	10	6.7	16	84.2	7	70.0	Į 16	61.5	49	70.0
YES	5 3	33.3	3	15.8	3	30.0	Î 10	38.5	21	30.0
TOTAL RESPONSES	15 6	62.5	19	43.2	10	58.8	. 26	68.4	70	56.9
NO RESPONSE	9 .	37.5	25	56.8	7	41.2	12	31.6	53	43.1
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	24		44		17		38		123	

TESTS OF SIGNIFICANCE

2 X 2 CHI-SQUARE =	VS. BAL LE .10 AGE 25 8UP 0.624 FOR 1 DF
BAL LE .10 AGE 15-24 2 X 2 CHI-SQUARE =	VS. BAL GE .11 AGE 15-24
BAL LE .10 AGE 25 &UP 2 X 2 CHI-SQUARE =	VS. BAL GE .11 AGE 25 BUP
BAL GE .11 AGE 15-24 2 X 2 CHI-SQUARE =	VS. BAL GE .11 AGE 25 &UP

MARYLAND MEDICAL-LEGAL FOUNDATION. INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

049 WHAT WAS THE SUBJECT'S OCCUPATION

## ## ## ## ## ## ## ## ## ## ## ## ##	[BAL	LE .10		[BAL	GE .11		TOT	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 &UP PCT	AGE	15-24 PCT	AGE 2	5 AUP PCT	N	PCT
NONE	0	0.0	Į O	0.0	1	9.1	Į O	0.0	1	1.4
UNSKILLED WORKR	3	30.0	1	11.5	4	36.4	‡ 5	18.5	15	20.3
SEMI-SKILLED	2	20.0	1	19.2	1	9.1	<u>į</u> 9	33.3	17	23.0
SKILLED WORKER	1	10.0	1 3	11.5	4	36.4	<u>.</u> 5	18.5	13	17.6
CLERK, TECHNICN	2	20.0	i 6	23.1	1	9.1	į 5	18.5	14	18.9
SEMI-PROFESSNAL	2	50.0	į 7	26.9	0	0.0	j 3	11.1	12	16.2
MINOR PROFESSNL	0	0.0	į 2	7.7	0	0.0	į o	0.0	2	2.7
MAJOR PROFESNAL	G I	0.0	İ C	0.0	0	0.0	Î 0	0.0	i o	0.0
TOTAL RESPONSES	10	41.7	26	59.1	11	64.7	27	71.1	I 74	60.2
NO RESPONSE	7	29.2	18	40.9	5	29.4	10	26.3	40	32.5
NOT APPLICABLE	7	29.2	0	0.0	1	5.9	. 1	2.6	9	7.3
TOTALS	24		44		17		38		Î 123	
MEAN	<u> </u> 	3.80		4.58	<u>.</u> [3.00		3.70	I I T	3.92
s o	i	1,62		1.55	i	1.26		1.30	î	1.50

TESTS OF SIGNIFICANCE

BAL LE .10 AGE 15-24 VS. BAL LE .10 AGE 25 &UP F(1, 34) = 1.766 BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 F(1, 19) = 1.608 BAL LE .10 AGE 25 &UP VS. BAL GE .11 AGE 25 &UP F(1, 51) = 4.954

MARYLAND MEDICAL-LEGAL FOUNDATION, INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

952	ANY	JOB	CHANGES	WITH	IN	LAST	12	MONTHS

	[BAL	LE .10			BAL	GE .11		TOT	AL
- RESPONSE	AGE N	15-24 PCT	AGE 2	5 &UP PCT	AGE	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
NONE	č č	62.5	Į 14	70.0	4	44.4	Į 14	56.0	37	59.7
PROMOTION	1	12.5	į 2	10.0	1	11.1	İ 5	20.0	9	14.5
NEW JOB	2	25.0	1 4	20.0	3	33.3	<u>‡</u> 5	20.0	14	22.6
LEAVE ABSENCE	į G	0.0	į o	0.0	i o	0 . 0.	į o	0.0	0	0.0
ACCIDENT	į ū	0.0	i o	0.0	0	0.0	į o	0.0	0	0.0
DEMOTION	i o	0.0	į o	0.0	0	0.0	<u> </u>	4.0	1	1.6
LAID-OFF	i o	0.0	į o	0.0	1	11.1	j o	0.0	1	1.6
FIRED	i u	0.0	i o	0.0	0	0.0	į · 0	0.0	0	0.0
***	ļ				[1			
TOTAL RESPONSES	1 8	33.3	20	45.5	9	52.9	25	65.8	62	50.4
NO RESPONSE	9	37.5	24	54.5	6	35.3	12	31.6	51	41.5
NOT APPLICABLE	7	29.2	0	0.0	2	11.8	. 1	2.6	10	8.1
TOTALS	24		44		1 17 1 17		38		123	

TESTS OF SIGNIFICANCE

BAL LE .10 AGE 15-24 VS. BAL LE .10 AGE 25 &UP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3 BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 2 X 2 CHI-SQUARE = 0.066 FOR 1 DF (1) BAL LE .10 AGE 25 &UP VS. BAL GE .11 AGE 25 &UP 2 X 2 CHI-SQUARE = 0.426 FOR 1 DF (1) ************************ EAL GE .11 AGE 15-24 VS. BAL GE .11 AGE 25 8UP 2 X 2 CHI-SGUARE = 0.042 FOR 1 DF (1)

MARYLAND MEDICAL-LEGAL FOUNDATION, INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

Q59D DURING CHILDHOOD- EXCESSIVELY ACTIVE AND/OR AGGRESSIVE

	I BAL	LE .10	BAL GE .11	TOTAL
RESPONSE	I AGE 15-24 I N PCT	AGE 25 SUP N PCT	AGE 15-24 AGE 25 &UP N PCT N PCT	N PCT
NO	1 12 80.0	Į 14 87.5	8 72.7 I 16 72.7	50 78.1
YES	3 20.0	Î 2 12.5	3 27.3 1 6 27.3	14 21.9
	Ī			
TOTAL RESPONSES	15 62.5	16 36.4	11 64.7 22 57.9	64 52.0
NO RESPONSE	9 37.5	28 63.6	6 35.3 16 42.1	59 48.0
NOT APPLICABLE	0.0	0 0.0	0 0.0 0 0.0	0 0.0
TOTALS	I 24 I	44	17 36	123

TESTS OF SIGNIFICANCE

MARYLAND MEDICAL-LEGAL FOUNDATION, INC. ACCIDENT INVESTIGATION STUDY (1973-1974) TASK II FINAL REPORT FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

Q61 MENTAL HEALTH DURING THE YEAR PRIOR TO ACCIDENT

***	I I	BAL	LE .10			BAL	GE .11		TOT	AL
RESPONSE	I AGE	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 AUP PCT	N	PCT
POOR	i o	0.0	Į 1	5.3	1	9.1	1 5	19.2	7	9.9
FAIR	2	13.3	į o	0.0	0	0.0	3	11.5	5	7.0
GOOD	7	46.7	į 8	42.1	5	45.5	9	34.6	29	40.8
EXCELLENT		40.0	! 10	52.6	5	45.5	9	34.6	30	42.3
•••••	İ									
TOTAL RESPONSES	1 15	62.5	19	43.2	11	64.7	26	68.4	71	57.7
NO RESPONSE	9	37.5	25	56.8	6	35.3	12	31.6	52	42.3
NOT APPLICABLE	į o	0.0	0	0.0	i o	0.0	O	0.0	0	0.0
TOTALS	24		44		17		38		123	
MEAN	I I	3.27		3.42		3.27		2.85		3.15
s o	i	0.70	•	0.77	Ĭ	0.90		1.12		0.93

TESTS OF SIGNIFICANCE

BAL LE .10 AGE 15-24 VS. BAL LE .10 AGE 25 &UP F(1, 32) = 0.364 BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 F(1. 24) = 0.000 BAL LE .10 AGE 25 8UP VS. BAL GE .11 AGE 25 8UP F(1, 43) = 3.713 BAL GE .11 AGE 15-24 VS. BAL GE .11 AGE 25 AUP F(1, 35) = 1.244

MARYLAND MEDICAL-LEGAL FOUNDATION, INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

0760	TMDIII	STVF

***************************************	I	BAL	LE .10			BAL	GE .11		TOT	AL
RESPONSE	AGE	15-24 PCT	AGE 2	5 &UP	AGE N	15-24 PCT	AGE 2	5 &UP I	N	PCT
NO	9	60.0	Į 15	75.0	7	70.0	Į 17	65.4	48	67.6
YES	İ 6	40.0	İ 5	25.0	3	30.0	İ 9	34.6	23	32.4
TOTAL RESPONSES	15	62.5	20	45.5	10	58.8	. 26	68.4	71	57.7
NO RESPONSE	9	37.5	24	54.5	7	41.2	12	31.6	52	42.3
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	I 24		44		17		38		123	

TESTS OF SIGNIFICANCE

BAL LE .10 AGE 15-2 2 X 2 CHI-SQUARE =	0.334 FOR	1 DF
BAL LE .10 AGE 15-2 2 X 2 CHI-SQUARE =	4 VS. BAL GE .11	AGE 15-24 1 DF
BAL LE 10 AGE 25 & 2 X 2 CHI-SQUARE =	UP VS. BAL GE .11	AGE 25 &UP 1 DF
BAL GE .11 AGE 15-2 2 X 2 CHI-SQUARE =	4 VS. BAL GE .11	AGE 25 BUP

MARYLAND MEDICAL-LEGAL FOUNDATION. INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

976D CAREFUL AND METHODICAL

		BAL	LE .10			BAL	GE .11	I	TOT	AL
RESPONSE	AGE 1	5-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 AUP I	[]	PCT
NO	11	73,3	Į 10	50.0	7	70.0	I 14	53.8	42	59.2
YES	4	26.7	10	50.0	3	30.0	1 12	46.2	29	40.8

TOTAL RESPONSES	15	62.5	20	45.5	10	58.8	. 26	68.4	71	57.7
NO RESPONSE	9	37.5	24	54.5	7	41.2	12	31.6	52	42.3
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	24		44		17		3 8		123	

TESTS OF SIGNIFICANCE

2 X 2 CHI-SQUARE =	VS. BAL LE .10 AGE 25 8UP 1.093 FOR 1 DF
BAL LE .10 AGE 15-24 NOT PERFORMED - EXPECT	VS. BAL GE .11 AGE 15-24 ED FREGUENCY LESS THAN 3
BAL LE .10 AGE 25 &UP 2 X 2 CHI-SQUARE =	VS. BAL GE .11 AGE 25 &UP
BAL GE .11 AGE 15-24 2 X 2 CHI-SQUARE =	VS. BAL GE .11 AGE 25 BUP

MARYLAND MEDICAL-LEGAL FOUNDATION: INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

QBO DID THE SUBJECT DRINK ALCOHOLIC BEVERAGES

\$10 mile and the first first one of the same and the first one of the firs	I BAL LE .10				BAL GE .11				TOTAL	
RESPONSE	AGE	15-24 PCT	AGE 2	5 RUP PCT	AGE	15-24 PCT	AGE 2	5 &UP I	N	PCT
NONE	3	20.0	<u> </u>	20.0	1	9.1	Į O	0.0	8	11.4
LT 1/WEEK	į o	0.0	<u> </u>	5.0	O	0.0	į o	0.0	1	1.4
ONE PER WEEK	4	26.7	į o	0.0	2	18.2	į o	0.0	6	8.6
FEW PER WEEK	5	33.3	<u>†</u> 9	45.0	1	9.1	<u>.</u> 7	29.2	22	31.4
LT 4/WEEK	į o	0.0	ļ 1	5.0	1	9.1	1 1	4.2	3	4.3
GE 4 PER WEEK	0	0.0	<u> </u>	10.0	2	18.2	<u> </u>	16.7	В	11.4
GE 1 PER DAY	<u> </u>	20.0	<u>i</u> 3	15.0	4	36.4	i I 12	50.0	22	31.4
TOTAL RESPONSES	I I I 15	62.5	 20	45.5	11	64.7	24	63.2	70	56.9
NO RESPONSE	I	37.5	24	54.5	6	35.3	14	36.8	53	43.1
NOT APPLICABLE	I o	0.0	0	0.0	0	0.0	0	0.0		0.0
TOTALS	I 24	,	44		17		38		123	
MEAN	Į Į	3.73		4.00	ī I	5.09		5.88	Ĭ I	4.76
s o	i	2.02		2.00	Ĭ	2.07		1.33	i	1.98

TESTS OF SIGNIFICANCE

33 MARYLAND MEDICAL-LEGAL FOUNDATION. INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

084 DID DRINKING EVER PRODUCE LOSS OF EMOTIONAL CONTROL

	BAL LE .10				BAL GE .11				TOTAL	
RESPONSE	AGE I N	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
NO	10	90.9	Į 13	86.7	7	70.0	I 16	64.0	46	75.4
YES	1	9.1	į 2	13.3	3	30.0	† 9	36.0	15	24.6
***	i		****							
TOTAL RESPONSES	<u>. 11</u>	45.8	15	34.1	10	58.8	25	65.8	61	49.6
NO RESPONSE	10	41.7	25	56.8	6	35.3	1.3	34.2	54	43.9
NOT APPLICABLE	3	12.5	4	9.1	1	5.9	0	0.0	8	6.5
TOTALS	24		44		17	, , , , , , ,	38		123	

TESTS OF SIGNIFICANCE

BAL LE .10 AGE 15-24 VS. BAL LE .10 AGE 25 &UP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	***
BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	
BAL LE .10 AGE 25 &UP VS. BAL GE .11 AGE 25 &UP 2 X 2 CHI-SQUARE = 1.412 FOR 1 DF	
BAL GE .11 AGE 15-24 VS. BAL GE .11 AGE 25 &UF 2 X 2 CHI-SQUARE = 0.003 FOR 1 DF	

Q86A DRINK WHEN ANXIOUS AND UPSET

*****	 [BAL	E .10		[BAL	E .11		TOT	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 BUP PCT	AGE	15-24 PCT	AGE 2	5 &UP I	N	PCT
NEVER	6	66.7	10	66.7	5	62.5	11	52.4	32	60.4
OCCASIONALLY	3	33.3	į 2	13.3	1	12.5	5	23.8	11	20.8
FREQUENTLY	O	0.0	į 3	20.0	2	25.0	5	23.8	10	18.9
	ļ									
TOTAL RESPONSES	9	37.5	15	34.1	8	47.1	21	55.3	53	43.1
NO RESPONSE	12	50.0	25	56.8	8	47.1	17	44.7	62	50.4
NOT APPLICABLE	3	12.5	4	9.1	1	5.9	0	0.0	8	6.5
TOTALS	24		44		17		38		123	
MEAN		1.33		1.53	I I	1.63		1.71		1.58
S D	t	0.50		0.83	ŧ	0.92		0.85		0.79

TESTS OF SIGNIFICANCE

35 MARYLAND MEDICAL-LEGAL FOUNDATION, INC. FINAL REPORT TASK II ACCIDENT INVESTIGATION STUDY (1973-1974) FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

Q86B DRINK WHEN DEPRESSED AND DOWN IN THE DUMPS

***************************************	В	L LE .1)		BAL	E .11		TOT	AL
RESPONSE	AGE 15-	4 AGE	25 AUP PCT	AGE N	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
NEVER	6 75	0 I 11	73.3	6	60.0	9	45.0	32	60.4
OCCASIONALLY	2 25	0 1 2	13.3	2	20.0	5	25.0	11	20.8
FREQUENTLY	0 0	.0 1 2	13.3	2	20.0	6	30.0	10	18.9
****	[ļ					
TOTAL RESPONSES	8 33	3 15	34.1	10	58.8	20	52.6	53	43.1
NO RESPONSE	13 54	2 25	56.8	6	35.3	18	47.4	62	50.4
NOT APPLICABLE	3 12	5 4	9.1	1	5.9	٥	0.0	8	6.5
TOTALS	24	44		17		38		123	,
MEAN	1	.25	1.40	Î Î	1.60		1.85		1.58
s o	i o	46	0.74	İ	0.84		0.88	Ì	0.79

TESTS OF SIGNIFICANCE

BAL LE .10 AGE 15-24 VS. BAL LE .10 AGE 25 &UP F(1, 21) = 0.271 BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 F(1, 16) = 1.103 BAL LE .10 AGE 25 &UP VS. BAL GE .11 AGE 25 &UP F(1, 33) = 2.586

BAL GE .11 AGE 15-24 VS. BAL GE .11 AGE 25 &UP F(1, 28) = 0.557

Q87B DRINK WHILE DRIVING

***	BAL	LE .10	BAL	E .11	TOT	AL
RESPONSE	AGE 15-24	AGE 25 AUP N PCT	AGE 15-24 N PCT	AGE 25 SUP	N	PCT
NEVER	7 58.3	I 6 46.2	4 40.0	1 10 40.0	27	45.0
OCCASIONALLY	4 33.3	6 46.2	3 30.0	9 36.0	22	36.7
FREQUENTLY	1 8.3	1 7.7	3 30.0	6 24.0	11	18.3
****	[A ** *** *** *** *** *** *** *** ***		
TOTAL RESPONSES	12 50.0	13 29.5	10 58.8	25 65.8	60	48.8
NO RESPONSE	9 37.5	27 61.4	6 35.3	13 34.2	55	44.7
NOT APPLICABLE	3 12.5	4 9.1	1 5.9	C 0.0	8	6.5
TOTALS	Į 24	44	17	38	123	
MEAN	i I 1.50	1.62	1.90	1.84	Î Î	1.73
s D	0.67	0.65	0.88	0.80	Î	0.75

TESTS OF SIGNIFICANCE

993 EVER RECEIVE MEDICAL TREATMENT FOR THE EFFECTS OF DRINKING

****		BAL	LE .10			BAL	GE .11	}	T0 T	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 SUP PCT	N	PCT
NO	11	100.0	Į 14	93.3	10	100.0	Į 25	96.2	60	96.8
YES	0	0.0	1 1	6.7	0	0.0	į 1	3.8	2	3.2
TOTAL RESPONSES	11	45.8	15	34.1	10	58.8	. 26	68.4	62	50.4
NO RESPONSE	10	41.7	25	56.8	6	35.3	12	31.6	53	43.1
NOT APPLICABLE	3	12.5	4	9.1	1	5.9	0	0.0	8	6.5
TOTALS	24 I		44		17		38		123	

TESTS OF SIGNIFICANCE

994 HOW MANY CIGARETTES SMOKED PER DAY

######################################	I	BAL	LE .10		[BAL	GE .11		TOT	AL
RESPONSE	AGE	15-24 PCT	AGE 2	5 &UP PCT	AGE	15-24 PCT	AGE 2	5 AUP PCT	N	PCT
10 OR LESS	11	73.3	ļ 15	78.9	9	81.8	Į 12	50.0	47	68.1
11-20	3	20.0	į 2	10.5	2	18.2	<u>.</u> 5	20.8	12	17.4
21-30	i o	0.0	į 2	10.5	i o	0.0	Į 4	16.7	6	8.7
31-40	1	6.7	į o	0.0	0	0.0	1 1	4.2	2	2.9
41-50	O	0.0	į o	0.0	0	0.0	1 1	4.2	1	1.4
51-60	0	0.0	į o	0.0	i o	0.0	į o	0.0	0	0.0
61-70	į o	0.0	į o	0.0	i o	0.0		4.2	1	1.4
71-80	jo	0.0	į o	0.0	ž o	0.0	į o	0.0	0	0.0
81-90	a	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
91-100	i o	0.0	į o	0.0	i o	0.0	<u>I</u> 0	0.0	i o	0.0
MORE THAN 100		0.0	I o	0.0	0	0.0	Į o	0.0	0	0.0
	Ī								į	
TOTAL RESPONSES	15	62.5	19	43.2	11	64.7	24	63.2	69	56.1
NO RESPONSE	į 9	37.5	25	56.8	<u> </u>	35.3	14	36.8	54	45.9
NOT APPLICABLE	į o	0.0	0	0.0	i 0	0.0	0	0.0	0	0.0
TOTALS	24		44		1 17		38		123	, .
MEAN	Ī	8.73		7.37	Į	5.45	,	16.88	Ī Ī	10.67
s o	i	11.65		10.46	İ	8.20		17.96	Ì	13.96

TESTS OF SIGNIFICANCE

APA	HUM	DFI	RHOTAT	MAC	THE	SUBJECT
	num	REL			177	SUBJE C. I

	BAL	LE .10	BAL G	.11	TOTAL
RESPONSE	AGE 15-24 N PCT	AGE 25 BUP N PCT	AGE 15-24 / N PCT	AGE 25 BUP N PCT	N PCT
NOT RELIGIOUS	5 33.3	1 5 25.0	1 9.1 [14 58.3	25 35.7
RELIGIOUS	8 53.3	12 60.0	10 90.9	10 41.7	40 57.1
DEEPLY RELGIOUS	2 13.3	1 3 15.0	0 0.0 1	0.0	5 7.1
*******	Î	-			
TOTAL RESPONSES	Î 15 62.5	20 45.5	11 64.7	24 63.2	70 56.9
NO RESPONSE	9 37.5	24 54.5	6 35.3	14 36.8	53 43.1
NOT APPLICABLE	0.0	0.0	0 0.0	0 0.0	0 0.0
TOTALS	i 24	44	17	38	123
MEAN	1.80	1.90	1.91	1.42	1.71
s D	i 0.68	0.64	0.30	0.50	0.59

	F	1. 33) =	BAL LE .10 0.199	-
BAL LE	.10 AGE F(15-24 VS. $1, 24) =$		AGE 15-24
BAL LE	•10 AGE	25 &UP VS. 1, 42) =		AGE 25 AUP
BAL GE	.11 AGE	15-24 VS. 1. 33) =	********** BAL GE .11 8.952	

9107 NUMBER OF PASSENGERS IN CAR AT TIME OF ACCIDENT

		,_, _,		OLIVO A		MI ISM		CCADEN	· 	
	I 1	BAL	LE .10		[BAL	GE .11		TOT	AL
RESPONSE	I AGE	15-24 PCT	AGE 2	5 AUP PCT	AGE	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
0	7	46.7	Į 16	80.0	6	54.5	Į 23	88.5	52	72.2
1	5	13.3	į z	10.0	2	18.2	į o	0.0	6	8.3
2	4	26.7	<u>į</u> 1.	5.0	2	18.2	į ı	3.8	8	11.1
3	1	6.7	į 1	5.0	1	9.1	<u>į</u> 2	7.7	5	6.9
4	1	6.7	į o	0.0	0	0.0	į o	0.0	1	1.4
5	0	0.0	į o	0.0	0	0.0	i o	0.0	. 0	0.0
6	į o	0.0	<u> i</u> o	0.0	0	0.0	I o	0.0	i o	0.0
7	i o	0.0	į o	0.0	į o	0.0	Ī o	0.0	0	0.0
8		0.0	į o	0.0	Į o	0.0	I o	0.0		0.0
9	Î O	0.0	i o	0.0	0	0.0	I O	0.0	[0	0.0
MORE THAN 9	i o	0.0	i o	0.0	0	0.0	I O	0.0	0	0.0
	Ī				i					
TOTAL RESPONSES	15	62.5	20	45.5	11	64.7	26	68.4	72	58.5
NO RESPONSE	9	37.5	24	54.5	6	35.3	12	31.6	51	41.5
NOT APPLICABLE	i o	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	24		44		17		38		123	
MEAN	<u>i</u> I	1.13	,	0.35	į	0.82		0.31		0.57
s D	I I	1.30		0.81	i	1.08		0.88	I I	1.03

TESTS OF SIGNIFICANCE

BAL LE .10 AGE 15-24 VS. BAL LE .10 AGE 25 BUP BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 F(1, 24) = 0.428

BAL LE .10 AGE 25 &UP VS. BAL GE .11 AGE 25 &UP F(1, 44) = 0.028 BAL GE .11 AGE 15-24 VS. BAL GE .11 AGE 25 &UP F(1, 35) = 2.262

0114	GENERAL	ATTITUDE	TOWARD	SPEED	OF	VEHICLE
------	---------	----------	--------	-------	----	---------

		BAL	LE .10			843	SE .11		TOT	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 &UP PCT	AGE N	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
SLOW DRIVER	0	0.0	Į 0	0.0	0	0.0	ļ 1	3.8	1	1.4
AVERAGE DRIVER	10	66.7	1 12	60.0	7	63.6	į 13	50.0	42	58.3
FAST DRIVER	1	6.7	<u> </u>	35.0	3	27.3	Ì 4	15.4	15	20.8
VERY FAST DRVER	4	26.7	ļ 1	5.0	1	9.1	į e	30.8	14	19.4
TOTAL RESPONSES	15	62.5	20	45.5	11	64.7	26	68.4	72	58.5
NO RESPONSE	9	37.5	24	54.5	6	35.3	12	31.6	51	41.5
NOT APPLICABLE	0	0.0	0	0.0	i o	0.0	0	0.0	O	0.0
TOTALS	24		44		17		38		123	
MEAN		2.60		2.45	Î Î	2.45		2.73		2.58
s t	Ī	0.91		0.60	ī	0.69		0.96	į	0.81

TESTS OF SIGNIFICANCE

BAL LE .10 AGE 15-24 VS. BAL LE .10 AGE 25 &UP F(1, 33) = 0.343 BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 F(1, 24) = 0.197 BAL LE .10 AGE 25 &UP VS. BAL GE .11 AGE 25 &UP F(1, 44) = 1.304 CAL GE .11 AGE 15-24 VS. BAL GE .11 AGE 25 8UP Fil. 35) = 0.741

0115	GENERAL	RISK-TAKING	ATTITUDE

	Ĭ	BAL	LE .10		[BAL (SE .11		TOT	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 &UP PCT	AGE N	15-24 PCT	AGE 2	5 AUP I	N	PCT
CAUTIOUS	3	20.0	Į 7	35.0	1	9.1	1 3	11.5	14	19.4
AVERAGE	7	46.7	10	50.0	8	72.7	1 15	57.7	40	55.6
TOOK CHANCES	5	33.3	<u> </u>	10.0	2	18.2	į 5	19.2	14	19.4
OFTEN TK CHANCE	0	0.0	į 1	5.0	i o	0.	į 3	11.5	4	5.6
***	ļ				<u> </u> 					
TOTAL RESPONSES	15	62.5	20	45.5	11	64.7	26	68.4	72	58.5
NO RESPUNSE	9	37.5	24	54.5	6	35.3	12	31.6	51	41.5
NOT APPLICABLE	0	0.0	0	0.0	Î O	0.0	0	0.0	0	0.0
TOTALS	24		44		17		38		123	
	Ĭ				İ	,			<u> </u>	
MEAN	1	2.13		1.85	I I	2.09		2.31	I I	2.11
S D	Ī	0.74	•	0.81	Ī	C.54		0.84	Ī	0.77

TESTS OF SIGNIFICANCE

Q117 DID THE SUBJECT USE SEAT BE	LIS	BE	\T	SEA'	USE	JECT	SUB	THE	DID	17	Q 1
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## ## ## ## ## ## ## ## ## ## ## ## ##	BAL	LE .10	I BAL	GE .11	TOTAL		
RESPONSE	AGE 15-24 N PC	AGE 25 AUP	AGE 15-24	AGE 25 AUP N PCT	I N	PCT	
NEVER	6 42.	F 8 47.1	4 40.0	I 21 95.5	39	61.9	
OCCASIONALLY	5 35.	7 1 8 47.1	5 50.0	1 4.5	19	30.2	
ALL THE TIME	3 21.	† 1 5.9	1 10.0	i 0 0.0	5	7.9	
TOTAL RESPONSES	14 58.	3 17 38.6	1 10 58.8	22 57.9	63	51.2	
NO RESPONSE	10 41.	7 27 61.4	7 41.2	15 39.5	59	48.0	
NOT APPLICABLE	0 0.0	0.0	0 0.0	1 2.6	<u>.</u> 1	0.8	
TOTALS	24	44	Î 17	38	1 123 I		
MEAN	1.	79 1.59	I I 1.78	0 1.05	Į	1.46	
s o	i 0.0	0.62	i 0.6	7 0.21	Î	0.64	

TESTS OF SIGNIFICANCE

44 MARYLAND MEDICAL-LEGAL FOUNDATION. INC. FINAL REPORT TASK II ACCIDENT INVESTIGATION STUDY (1973-1974) FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

Q118 WAS SUBJECT WEARING SEAT BELT AT TIME OF ACCIDENT

	[[BAL LE .10 I				BAL GE .11				AL
RESPONSE	AGE	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 &UP I	N	PCT
NO	15	93.8	I 24	96.0	9	100.0	Į 23	92.0	71	94.7
YES	1	6.3	į 1	4.0	0	0.0	į 2	8.0	4	5.3
15 AP 40 AP 40 40 40 AP 40 40 40 40 40 40 40 40 40 40 40 40 40	[*							
TOTAL RESPONSES	16	66.7	25	56.8	9	52.9	25	65.8	75	61.0
NO RESPONSE	8	33,3	19	43.2	8	47.1	12	31.6	47	38.2
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	1	2.6	1	0.8
TOTALS	24		44		17		38		123	

BAL LE .10 AGE 15-24 VS. BAL LE .10 AGE 25 8U NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	
BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	,
BAL LE 10 AGE 25 &UP VS. BAL GE 11 AGE 25 &U NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	P
BAL GE .11 AGE 15-24 VS. BAL GE .11 AGE 25 BU NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	P

4122 EXHIBITION OF CONCERN WITH REGARD TO TRAFFIC VIOLATIONS

***		BAL	LE .10			BAL		I TOTAL		
RESPONSE	AGE	15-24 PCT	AGE 2	5 &UP PCT	AGE N	15-24 PCT	AGE 2	S &UP	N	PCT
NO CONCERN	4	50.0	Į 3	27.3	2	33.3	Į 9	75.0	18	48.6
AVERAGE CONCERN	4	50.0	į 6	54.5	4	66.7	İ 3	25.0	17	45.9
MUCH CONCERN	0	0.0	į 2	18.2	0	0.0	į o	0.0	2	5.4
****			4 							
TOTAL RESPONSES	8	33.3	11	25.0	6	35.3	12	31.6	37	30.1
NO RESPONSE	15	62.5	31	70.5	9	52.9	26	68.4	81	65.9
NOT APPLICABLE	1	4.2	Ż	4.5	2	11.8	0	0.0	5	4.1
TOTALS	24		44		17		38		123	
MEAN	Ī	1.50		1.91		1.67		1.25		1.57
s o	İ	0.53	•	0.70	Ì	0.52		0.45	t	0.59

TESTS OF SIGNIFICANCE

BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 F(1, 12) = 0.343 BAL LE .10 AGE 25 &UP VS. BAL GE .11 AGE 25 &UP F(1, 21) = 7.313 BAL GE .11 AGE 15-24 VS. BAL GE .11 AGE 25 &UP F(1, 16) = 3.101

0123 INVOLVEMENT IN OTHER ACCIDENTS WHILE UNDER INFLUENCE OF ALCOHOL

***************************************] 	BAL	LE .10)	BAL GE .11				TOT	AL
RESPONSE	I AGE	15-24 PCT	AGE 2	5 SUP PCT	AGE N	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
NO	11	91.7	Į 14	100.0	7	100.0	Į 13	72.2	45	88.2
YES	1	8.3	Î O	0.0	O	0.0	į 5	27.8	6	11.8
***	Î									
TOTAL RESPONSES	12	50.0	14	31.8	7	41.2	. 18	47.4	51	41.5
NO RESPONSE	12	50.0	30	68.2	10	58.8	20	52.6	72	58.5
NOT APPLICABLE	i o	0.0	0	0.0	0	0.0	O	0.0	0	0.0
TOTALS	i 24		44		17		38		123	

BAL LE .10 AGE 15-24 VS. BAL LE .10 A NOT PERFORMED - EXPECTED FREQUENCY LES	IS THAN 3
BAL LE .10 AGE 15-24 VS. BAL GE .11 A NOT PERFORMED - EXPECTED FREQUENCY LES	GE 15-24 IS THAN 3
BAL LE .10 AGE 25 &UP VS. BAL GE .11 A NOT PERFORMED - EXPECTED FREQUENCY LES	IGE 25 SUP
BAL GE .11 AGE 15-24 VS. BAL GE .11 A NOT PERFORMED - EXPECTED FREQUENCY LES	IGE 25 &UP

Q124C TROUBLE WITH LAW AS AN ADULT

	I BAL	LE .10	BAL GE .11	TOTAL
RESPONSE	AGE 15-24 N PCT	AGE 25 &UP N PCT	AGE 15-24 AGE 25 SUP N PCT N PCT	N PCT
NO	10 100.0	Į 15 78.9	8 88.9 1 14 60.9	47 77.0
YES	i 0 0.0	1 4 21.1	1 11.1 1 9 39.1	14 23.0
****	l			
TOTAL RESPONSES	1 10 41.7	19 43.2	9 52.9 23 60.5	61 49.6
NO RESPONSE	10 41.7	25 56.8	6 35.3 .15 39.5	56 45.5
NOT APPLICABLE	4 16.7	0 0.0	2 11.8 0 0.0	6 4.9
TOTALS	I 24 I	44	17 36	123

TESTS OF SIGNIFICANCE

BAL LE .10 AGL 15-24 VS. BAL LE .10 AGE 25 8UP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3 BAL LE .10 AGE 15-24 VS. BAL GE .11 AGE 15-24 NOT PERFORMED - EXPECTED FREGUENCY LESS THAN 3 ************* BAL LE .10 AGE 25 BUP VS. BAL GE .11 AGE 25 BUP 2 X 2 CHI-SGUARE = 0.857 FOR 1 DF

0125 NUMBER	OF	TIMES	IN	TROUBLE	WITH	LAW	(CONVICTIONS)
-------------	----	-------	----	---------	------	-----	---------------

	I I	BAL	LE .10		 [BAL	GE .11]	TOT	AL
RESPONSE	I AGE	15-24 PCT	AGE 2	5 SUP PCT	AGE	15-24 PCT	AGE 2	5 EUP PCT	N	PcT
0	10	76.9	I 15	78.9	5	50.0	Į 13	59.1	43	67.2
1	į o	0.0	ļ 1	5.3	2	20.0	<u>i</u> 2	9.1	- 5	7.8
2	2	15.4	į o	0.0	1	10.0	<u> </u>	9.1	5	7.8
3	1	7.7	į 1	5.3	0	0.0	ļ 1	4.5	3	4.7
4	î o	0.0	į o	0.0	0	0.0	<u>i</u> 5	9.1	2	3.1
5	į o	0.0	į o	0.0	1	10.0	į o	0.0	1	1.6
6	į o	0.0	į	5.3	į o	0.0	1	4.5	2	3.1
7	į o	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
8	i o	0.0	į o	0.0	į o	0.0	į a	0.0	0	0.0
9	Î O	0.0	į o	0.0	0	0.6	į o	0.0	0	0.0
10	1 0	0.0	<u>.</u> 1	5.3	0	0.0	į o	0.0	1	1.6
11 OR MORL	i o	0.0	i o	0.0	1	10.0	Î · 1	4.5	2	3.1
TOTAL RESPONSES	I I I 13	54.2	 19	43.2	10	58.8	22	57.9	[[[64	52.0
NO RESPONSE	i	45.8	25	56.8	7	41.2	16	42.1	59	48.0
NOT APPLICABLE	i o	0.0	0	0.0		0.0	0	0.0		0.0
TOTALS	Î 24		44		17		38		123	
	I I		• "							
MEAN	I I	0.54		1.05		2.00		2.18	Ī	1.48
s D	Ī	1.05	1	2.63	i	3.53		5.38	Ť	3.72

TESTS OF SIGNIFICANCE

		BAL	LE .10		[BAL	GE .11		TOT	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 &UP PCT	N	PCT
0	18	94.7	I 29	80.6	11	91.7	İ 56	74.5	84	82.4
1	0	0.0	i o	0.0	1	8.3	<u>į</u> 5	14.3	6	5.9
2	1	5.3	Î 4	11.1	0	0.0	<u>į</u> 2	5.7	7	6.9
3	0	0.0	ļ 1	2.8	0	0.0	<u>.</u> 2	5.7	3	2.9
4	0	0.0	<u> </u>	5.6	į o	0.0	į o	0.0	2	2.0
5	0	0.0	į o	0.0	į o	0.0	į o	0.0	0	0.0
6	0	0.0	į	0.0	i o	0.0	į o	0.0	0	0.0
7	0	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
8	0	0.0	į o	0.0	0	0.0	į o	0.0	i o	0.0
9	0	0.0	į o	0.0	i o	0.0	į o	0.0	i o	0.0
10	0	0.0	į o	0.0	0	0.0	j o	0.0	0	0.0
11 OR MORE	0	0.0	Î.O	0.0	0	0.0		0.0	0	0.0
	[[[[]	
TOTAL RESPONSES	19 [79.2	36	81.8	12	70.6	35	92.1	102	82,9
NO RESPONSE	5	20.8	8	18.2	5	29.4	3	7.9	21	17.1
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	24		44		17		38		123	
MEAN		0.11		0.53		0.08		0.45		0.36
s o	į	0.46		1.16	Ì	0.29		0.85	i	0.88

TESTS OF SIGNIFICANCE

S15 NUMBER OF SPEEDING CONVICTIONS

		313 110	TOLK O	- 3766	1110 6	.0144161	10143			
	I	BAL	E .10			BAL	GE .11		TOT	AL
RESPONSE	I AGE	15-24 PCT	AGE 2	5 &UP PCT	AGE N	15-24 PCT	AGE 2	5 BUP PCT	N	PCT
0	11	57.9	I 18	50.0	9	75.0	Į 17	48.6	55	53.9
1	į į	31.6	į 6	16.7	0	0.0	<u> </u>	17.1	18	17.6
2	1 2	10.5	į 6	16.7	2	16.7	ļ 7	20.0	17	16.7
3	į o	0.0	1 1	2.8	1	8.3	<u>i</u> 5	5.7	4	3.9
4	0	0.0	1 4	11.1	į o	0.0	<u> </u>	2.9	5	4.9
5	į o	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
6	į o	0.0	į	0.0	0	0.0	į o	0.0	0	0.0
7	0	0.0	i o	0.0	0	0.0	1	2,9	1	1.0
8	0	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
9	i o	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
10	i 0	0.0	į o	0.0	į o	0.0	1 1	2.9	1	1.0
11 OR MORE	i o	0.0	i ı	2.8	i o	0.0	İ O	0.0	1	1.0
TOTAL RESPONSES	I I I 19	79.2	 36	81.8	12	70.6	35	92.1	102	62.9
NO RESPONSE	I I 5	20.8	8	18.2	[5	29.4	3	7.9	21	17.1
NOT APPLICABLE	I O	0.0	0	0.0	0	0.0	O	0.0	0	0.0
TOTALS	I		44		17		38		123	
	I I				[[
MEAN	I I	0.53		1.58	I I	0.58		1.34	C C	1.19
S D	I .	0.70		3.43	I	1.08		2.13		2.44

TESTS OF SIGNIFICANCE

S114 EXTENT OF DRINKING (REVISED ALCOHOLIC CLASSIFICATION 7/73)

	I	BAL	LE .10			BAL	GE .11		TOT	AL
RESPONSE	AGE.	15-24 PCT	AGE 2	5 JUP PCT	AGE N	15-24 PCT	AGE 2	5 AUP	N	PCT
ABSTAINER	3	21.4	Į 5	22.7	1	9.1	Į O	0.0	9	12.0
MILD SOCIAL	i 5	35.7	Î 10	45.5	4	36.4	į e	28.6	27	36.0
MODERATE SOCIAL	5	35.7	‡ 4	18.2	3	27.3	Į 9	32.1	21	28.0
MOD/HEAVY SOC	1	7.1	1 3	13.6	1	9.1	<u>†</u> 9	32.1	14	18.7
HEAVY SOCIAL	i o	0.0	į o	0.0	2	18.2	į 1	3.6	3	4.0
SPORADIC BINGE	į o	0.0	į o	0.0	į o	0.0	į 1	3.6	1	1.3
ALCOHOLIC	i o	0.0	Ī o	0.0	i o	0.0	i o	0.0	0	0.0
	I Į				I				[
TOTAL RESPONSES	I 14 I	58.3	22	50.0	l 11 I	64.7	28	73.7	t 75 [61.0
NO RESPONSE	I 10	41.7	22	50.0	I 6	35.3	10	26.3	I 48	39.0
NOT APPLICABLE	Î O	0.0	0	0.0	i o	0.0	0	0.0	0	0.0
TOTALS	Î 24		44		17		38		123	
MEAN	I I T	2.29		2.23	I I	2.91		3.21	I I T	2.71
S D	Î	0.91		0.97	Î	1.30		1.03	ŧ	1.10

TESTS OF SIGNIFICANCE

Maryland Medical-Legal Foundation, Inc. - Final Report 1973

Appendix II

Frequency Distribution Tables

Non-Fatal Responsible Male Drivers

Task II

22 HEIGHT (INCHES)

	l !	ALC	ABSENT		[ALC !	PRESN	T	TOT	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 &UP PCT	AGE	15-24 PCT	AGE N	25 &UP PCT	N	PCT
60 OR BELOW	0	0.0	į o	0.0	i o	0.0	0	0.0	0	0.0
61-62	0	0.0	Î O	0.0	ָ [֖] ס	0.0	į o	0.0	0	0.0
63-64	i o	0.0	į o	0.0	0	0.0	0	0.0	0	0.0
65-66	i o	0.0	į 2	25.0	3	50.0	<u> </u>	12.5	6	20.7
67-68	1	14.3	į 3	37.5	1	16.7	i 3	37.5	8	27.6
69-70	2	28.6	į 1	12.5	1	16.7	1 2	25.0	6	20.7
71-72	ج ب	28.6	į o	0.0	1	16.7	1	12.5	4	13.8
73-74	1	14.3	1 2	25.0	į o	0.0	1	12.5	4	13.8
75-76	ļ	14.3	į o	0.0	0	0.0	i c	. 0.0	1	3.4
77-78	j o	0.0	į o	0.0	0	0.0		0.0	0	0.0
79-80		0.0	į o	0.0	0	0 . ŭ	j	0.0	0	0.0
MORE THAN 80	i o	8.0	i o	0.0	i c	0.0	Î n	0.0	I 0 I	0.0
TOTAL RESPONSES	1 1 7	77.8	8	80.0	I 6	66.7	 8	57.1	29	69.0
NO RESPONSE	<u> </u>	22.2	2	20.0	I	33.3	6	42.9	13	31.0
NOT APPLICABLE	I O	0.0	G	0.0	I O	0.0	O	U.C	[0	0.0
TOTALS	I		10		9		14		1 [42	
NEAN	Ĭ Į	71.00		69.00	I I I	67.83		68.75	I I I	69•17
s u	I I	2.38		3.16	I I	2.71		2.43	I L	2.74

TESTS OF SIGNIFICANCE

95	RA	CE
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			- -	
	ALC	ABSENT	ALC PRESNT	TOTAL
RESPONSE	AGE 15-24 N PCT	AGE 25 &UP N PCT	AGE 15-24 AGE 25 &UP	N PCT
CAUCASIAN	8 88.9	I 8 80.0	8 68.9 1 8 57.1	32 76.2
NEGRO	1 11.1	2 20.0	1 11.1 1 6 42.9	10 23.8
ASIAN(ORIENTAL)	0.0	Î 0 0.0		0 0.0
AMERICAN INDIAN	0 0.0	1 0 0.0	, 0 0 0 , 0 0 0 0	0 0.0
OTHER	a 0. 0	1 0 0.0		0.0
TOTAL RESPONSES	9 100.0	10 100.0	9 100.0 14 100.0	42 100.0
NO RESPONSE	0 0.0	0 0.0	0 0.0 0 0.0	0 0.0
NOT APPLICABLE	0.0	0 0.0	0 0.0 0 0.0	0 0.0
TOTALS	9	10	9 14	42

TESTS OF SIGNIFICANCE

G30 EDUCATION (IN YEARS COMPLETED)

	1 /	ALC ABSENT 1			ALC	PRESIN		I TOTAL	
RESPONSE	I AGE 15-		25 &UP	I AGE	15-24 PCT		5 8UP 1	N	PcT
6 OR LESS	I U	0.0 į	0.0	į o	0.0	Į (i	0.6	0	0.0
7	. 0 C	ំ.ប រ៉ុំ	0 0.0	1 1	11.1	i o	0.0	1	2.8
δ	រុំ ១ ០	.0 I	0.0	į 1	11.1	1 2	18.2		8.3
9	i 2 22	:•5 <u>î</u>	0.0	į ε	0.0	<u>.</u> 2	10.2	4	11.1
10	1 1 11	1	1 14.3	ļ 1	11.1	I I 3	27.5	6	16.7
11	1 1 11	.1 🖟	0.0	į	11.1		9.1	3	8.3
12	i i 3 33	3 1	3 42.9	Į 4	44.4	1 1	9.1	11	30.6
13	$\stackrel{1}{\mathbf{I}}$ $\stackrel{.}{0}$ $\stackrel{.}{0}$	0.0	1 14.3	į o	0.0	į –	16.2	3	8.3
14	1 2 22	2.2	1 14.3	<u> </u>	11.1		ប.្	4	11.1
15	į (. ().u į	0.0	į o	0.8	i e	0.0	0	0.0
16	į u i	ָּט בָּ	1 14.3	į o	0.0	<u> 1</u> 6	0.5	1	2.8
MORE THAT 16	į (1 0.1 I	0 0.0	I O	0.0	I · n	0.0	0	0.0
TUTAL PESPONSES	9 100	.0	7 70.0	I 9	100.0	11	78.6	. 36	65.7
NU RESPONSE]	.0	3 30.0	I 6	0.0	 ئ	21.4	l	14.3
BUT APPLICABLE	i i 5 0) . ()	0 0.0	I o	6.0	ij	0.0	[0	0.0
TOTALS	1 7	1	0	I I 9 I		14,		42	
f(t, I, t)	1 11	44	12.71	İ	10.89		10.27		11.19
\$ 6	İ 1	.88	1.89	i	2.20		1.79	Ĺ	2.03

TESTS OF SIGNIFICANCE

Q76D CAREFUL AND METHODICAL

	Į ALC	ABSENT	ALC PRESNT	TOTAL
RESPONSE	AGE 15-24	AGE 25 &UP N PCT	AGE 15-24 AGE 25 SUP N PCT N PCT	N PCT
NO	5 55.6	1 3 42.9	8 88.91 8 80.0	24 68.6
YES	I I 4 44.4	I 4 57.1	1 11.1 2 20.0	11 31.4
TOTAL RESPONSES	9 100.0	7 70.0	9 100.0 10 71.4	35 83.3
NO RESPONSE	0.0	3 30.0	0 0.0 4 28.6	7 16.7
NOT APPLICABLE	i 0 0,0	0 0.0	0 0.0 0 0.0	0 0.0
TOTALS	l 9 l 9	10	1 9 14 I	42

ALC ABSENT AGE 15-24 VS. ALC ABSENT 2 X 2 CHI-SGUARE = 0.000 FGR	1 DF
ALC ARSENT AGE 15-24 VS. ALC PRESNT	' AGE 15-24
NOT PERFORMED - EXPECTED FREQUENCY L	ESS THAN 3
ALC AESENT AGE 25 SUP VS. ALC PRESNT NOT PERFORMED - EXPECTED FREQUENCY L	' ACE 25 EUP ESS THAN 3
ALC PRESNT AGE 15-24 VS. ALC PRESNT	AGE 25 BUP
NOT PERFORMED - EXPECTED FREQUENCY L	LESS THAN 3

984 DID DRINKING EVER PRODUCE LOSS OF EMOTIONAL CONTROL

		ALC	ABSENT		 [ALC	PRESNT		TOT	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 SUP PCT	AGE N	15-24 PCT	AGE 2	5 LUP PCT	N	PCT
NO	5	71.4	Į 3	42.9	5	62.5	Į 7	70.0	20	62.5
YES	2	28.6	Î 4	57.1	3	37.5	Î 3	30.0	12	37.5
		~~~~								
TOTAL RESPONSES	7	77.8	7	70.0	8	68.9	. 10	71.4	32	76.2
NO RESPONSE	0	0.0	3	30.0	0	0.0	4	26.6	7	16.7
NOT APPLICABLE	2	22.2	0	0.0	1	11.1	0	0.0	3	7.1
TOTALS	9		10		9	~ ~ ~ ~ ~ ~	14		42	dis dis 177 49 day

ALC ABSENT AGE 15-24	VS. ALC ABSENT AGE 25 &UP
2 X 2 CHI-SQUARE =	0.291 FOR 1 DF
ALC ABSENT AGE 15-24	VS. ALC PRESNT AGE 15-24
NOT PERFORMED - EXPE	TED FREQUENCY LESS THAN 3
ALC ABSENT AGE 25 &UF	VS. ALC PRESNT AGE 25 BUP
NOT PERFORMED - EXPEC	TED FREQUENCY LESS THAN 3
ALC PRESNT AGE 15-24	VS. ALC PRESNT AGE 25 &UP

0878 DRINK WHILE DRIVING

***	I ALC	ABSENT	ALC P	RESNT	I TOTAL		
RESPONSE	I AGE 15-24	AGE 25 SUP N PCT	AGE 15-24 I N PCT	AGE 25 AUP	N	PCT	
NEVER	3 42.9	Į 3 42.9	į 3 37.5 Į	2 20.0	11	34.4	
OCCASIONALLY	4 57.1	2 28.6	្រែ ១ ខែខ.១ រ៉ូ	7 70.0	18	56.3	
FREGUENTLY	0.0	i 2 28.6	0.0	1 10.0	3	9.4	
TOTAL RESPONSES	1 1 7 77.8	7 70.0	i i 8 88.9	10 71.4	32	76.2	
NO RESPONSE	1 0 0.0	3 30.0	0 0.0	4 28.6	7	16.7	
NOT APPLICABLE	2 22.2	0 0.0	1 11.1	0.0	3	7.1	
TOTALS	i 9	10	i 9 I	14	i 42	·	
WCAN	1,57	1.86	Î Î 1.63	1.90	I I	1.75	
s 0	i 0,53	0.90	0.52	0.57	i	0.61	

#### TESTS OF SIGNIFICANCE

Q93 EVER RECEIVE MEDICAL TREATMENT FOR THE EFFECTS OF CRINKING

	ALC	ASSENT	ALC PRESET	TOTAL
RESPONSE	AGE 15-24 N PCT		I AGE 15-24 AGE 25 XUF I N PCT II PCT	I N PCT
NO.	8 100,0	1 7 100.0	6 75.0 1 8 86.9	29 90.6
YES	0.0	1 0 0.0	1 2 25.8 1 1 11.1	j 3 9.4
***				I
TOTAL RESPONSES	8 2 <b>6.</b> 9	7 70.0	I 8 88.9 9 44.5	32 76.2
TO RESPONSE	5 0.0	3 30.0	0 0.0 5 35.7	3 19.0
NOT APPLICABLE	1 11.1	0 0.0	1 1 11.1 0 0.)	2 4.8
TOTALS	ÿ	1 Ú	1 9 . u	1 42

- NOT PERFORMED - DI	-24 VS. ALC ABSENT AGE 25 KIN XPECTED FREQUENCY LESS THAN 3
- ALC AUSENT AGE 15 - WOLFERFURKED - F	**************************************
- ALC NOSE IT NOS 25 - HOT PERFORMED - E.	AUP VS. ALC PRESHT AGE 25 30P xPECTEU FREGUENCY LESS THAN 5
- ALC PRESUL AGE 15. - DOT PERFORMED - FI	-24 VS. ALC PRESET AGE 25 ROP XPECTED FREGHENCY LESS THAN A

Q101 MOST RECENT THREAT OF SUICIDE

· · · · · · · · · · · · · · · · · · ·	1 1	ALC	ABSENT		l 	ALC F	PESNT	]	TOT	AL
RESPONSE	I AGE	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT		CP I	N	PCT
WITHIN 6 MONTHS		11.1	Į 0	0.0	i c	0.0	1 11	.1	2	6.1
7-12 MONTHS AGO	Î O	0.0	Î O	0.0	i o	0.0	0 0	.0	0	0.0
13-24 MONTH AGO	Î C	0.0	0 1	0.0	Î o	0.0	0 0	0.0	0	0.0
GT 24 MONTHS	<u>.</u> 1	11.1	<u> </u>	0.0	1	11.1	0 0	0.0	2	6.1
NEVER	<u> </u>	77.8	i e	100.0	8	88.9	8 8	9	29	87.9
TOTAL RESPONSES	l l I 9	100.0	6	60.0	[ [ 9	100.0	9 64	3	33	78.6
NO RESPONSE	i	0.0	4	40.0	[	0.0		.7	9	21.4
NOT APPLICABLE		0.0	0	0.0	0	0.0	o. ÿ	0.0	0	0.0
TOTALS	9		10	,	9		14		42	~~~
MEAN		4.44		5.00		4.89	ц.	.5 ₆		4.70
s o	Î	1.53		0.00		0.33	1.	<b>3</b> 3	t	0.97

#### TESTS OF SIGNIFICANCE

Q1Q7 NUMBER OF PASSENGERS IN CAR AT TIME OF ACCIDENT

	7000	5EN 01	. 40054	OLKS I	CAR	MI 147			, 	
		ALC ABSENT I			ALC PRESNT				TOT	AL
RESPONSE	AGE N	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 AUP PCT	N	PCT
0	5	55,6	Į 4	57.1	1	11.1	Į 8	80.0	18	51.4
1	<b>į</b> 3	33.3	<u>į</u> 2	28.6	3	33.3	į 1	10.0	9	25.7
2	1	11.1	į o	0.0	3	33.3	į 1	10.0	5	14.3
3	į o	0.0	į	14.3	2	22.2	į o	0.0	3	8.6
4	0	0.0	į o	0.0	i o	0.0	į o	0.0	0	0.0
5	i o	0.0	į o	0.0	į o	0.0	į o	0.0	0	0.0
6	į o	0.0	į o	0.0	į o	0.0	į o	0.0	0	0.0
7	į o	0.0	į o	0.0	į o	0.0	į o	0.0	0	0.0
8	į o	0.0	į o	0.0	į o	0.0	į o	0.0	0	0.0
9	i o	0.0	Î o	0.0	į o	0.0	į o	0.0	0	0.0
MORE THAN 9	i o	0.0	i o	0.0	i o	0.0	0 1	0.0	0	0.0
	Î Î				I I				I I	
TOTAL RESPONSES	I 9 I	100.0	7	70.0	9 I	100.0	10	71.4	I 35	83.3
NO RESPONSE	Î O	0.0	3	30.0	į o	0.0	4	28.6	Ĭ 7	16,7
NOT APPLICABLE	Ī 0	0.0	0	0.0	Î 0	0.0	0	0.0	i o	0.0
TOTALS	i 9		10		9		14		Î 42 Î	
MEAN	I I	0.56		0.71	Į	1.67		0.30	I I	0.80
S D	İ	0.73		1.11	İ	1.00		0.67	İ	0.98

### TESTS OF SIGNIFICANCE

ALC ABSENT AGE 15-24 VS. ALC ABSENT AGE 25 &UP F(1, 14) = 0.119 ALC ABSENT AGE 15-24 VS. ALC PRESNT AGE 15-24 F(1, 16) = 7.273 ALC ABSENT AGE 25 &UP VS. ALC PRESNT AGE 25 &UP F(1, 15) = 0.920 ****************** ALC PRESNT AGE 15-24 VS. ALC PRESNT AGE 25 &UP F(1, 17) = 12.430

G110 PURPOSE OF TRIP AT TIME OF ACCIDENT

		ALC ABSENT I			ALC PRESNT				TOTAL	
RESPONSE	AGE.	15-24 PCT	AGE 2	5 &UP PCT	AGE N	15-24 PCT	AGE 2	5 &UP I	N	PCT
SOCIAL	4	50.0	Ĭ 2	40.0	6	66.7	Į 7	77.8	19	61.3
BUSINESS	3	37.5	Î 3	60.0	0	0.0	1 2	22.2	8	25.8
SHOPPING	1	12.5	į o	0.0	0	0.0	į o	0.0	1	3.2
PLEASURE	0	0.0	į o	0.0	3	33.3	į o	0.0	3	9.7
***			****							
TOTAL RESPONSES	8	88.9	5	50.0	9	100.0	9	64.3	31	73.8
NO RESPONSE	1	11.1	5	50.0	0	0.0	5	35.7	11	26.2
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	9		10		9		14		42	

#### TESTS OF SIGNIFICANCE

ALC ABSENT AGE 15-24 VS. ALC ABSENT AGE 25 8UP MOT PERFORMED - EXPECTED FREGUENCY LESS THAN 3 ALC ABSENT AGE 15-24 VS. ALC PRESNT AGE 15-24 NOT PERFORMED - EXPECTED FREGUENCY LESS THAN 3 ALC ABSENT AGE 25 8UP VS. ALC PRESNT AGE 25 8UP MOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3 ALC PRESNT AGE 25 8UP VS. ALC PRESNT AGE 25 8UP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3 ALC PRESNT AGE 15-24 VS. ALC PRESNT AGE 25 8UP NOT PERFURMED - EXPECTED FREQUENCY LESS THAN 3

9114 GENERAL ATTITUDE TOWARD SPEED OF VEHICLE

***	I ALC	ABSENT	ALC PRESNT	TOTAL	
RESPONSE	I AGE 15-24 I N PCT	AGE 25 &UP N PCT	AGE 15-24 AGE 25 &UP	N PCT	
SLOW DRIVER	i 0 0.0	I 0 0.0	0 0.0 1 0 0.0	0 0.0	
AVERAGE DRIVER	6 66.7	3 42.9	3 37.5 1 5 55.6	17 51.5	
FAST DRIVER	3 33.3	1 3 42.9	4 50.0 1 4 44.4	14 42.4	
VERY FAST DRVER	1 0 0.0	1 14.3	1 12.5 1 0 0.0	2 6.1	
**********	 			1 [ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	
TOTAL RESPONSES	9 100.0	7 70.0	8 88.9 9 64.3	33 78.6	
NO RESPONSE	1 0 0.0	3 30.0	1 11.1 5 35.7	9 21.4	
NOT APPLICABLE	0.0	0 0.0	0 0.0 0 0.0	0 0.0	
TOTALS	1 9	10	9 14	ļ 42	
MEAN	1 I 2.33	2.71	2.75 2.44	I I I 2.55	
s D	i 0.50	0.76	0.71 0.53	i 0.61	

		F(1, 14)	S. ALC ABSENT AGE 25	
ALC	ABSENT	AGE 15-24 V	**************************************	-24
ALC	ABSEST	AGE 25 &UP V	S. ALC PRESNT AGE 25 = 0.710	&UP
	PRESNT	AGE 15-24 V F(1, 15)	S. ALC PRESNT AGE 25 = 1.037	&UP

0117 DID THE SUBJECT USE SEAT BELTS

	I ALC	ABSENT	ALC PR	ESNT	TOTAL	
RESPONSE	I AGE 15-24 I N PCT	AGE 25 8UP	AGE 15-24 A	GE 25 AUP N PCT	N PCT	
NEVER	5 55.6	I 2 33.3	8 88.9 1	6 66.7	21 63.6	
OCCASIONALLY	3 33.3	Î 4 66.7	0 0.0 I	3 33.3	10 30.3	
ALL THE TIME	1 11.1	1 0 0.0	1 11.1	0.0	2 6.1	
****		*				
TOTAL RESPONSES	9 100.0	6 60.0	9 100.0	9 64.3	33 78.6	
NO RESPONSE	0 0.0	4 40.0	0 0.0	5 35.7	9 21.4	
NOT APPLICABLE	6 0.0	0. 0.0	0 0.0	0 0.0	0 0.0	
TOTALS	9	10	9	14	42	
MEAN	i I 1.5s	1.67	1.22	1.33	1.42	
s u	0.73	U.52	0.67	0.50	0.60	

#### TESTS OF SIGNIFICANCE

ALC ABSENT AGE 15-24 VS. ALC ABSENT AGE 25 &UP F(1, 13) = 0.104 ALC ABSENT AGE 15-24 VS. ALC PRESNT AGE 15-24 F(1, 16) = 1.029 ALC ABSENT AGE 25 MUP VS. ALC PRESNT AGE 25 MUP F(1, 13) = 1.560 ALC PRESNT AGE 15-24 VS. ALC PRESNT AGE 25 &UP
F(1, 16) = 0.160

9116 WAS SUBJECT WEARING SEAT BELT AT TIME OF ACCIDENT

	ALC	ABSENT	ALC PRESNT	TOTAL
RESPONSE	AGE 15-24 N PC1		AGE 15-24 AGE 25 &UP I N PCT N PCT	N PCT
NO	9 100.0	Į 6 66.7	8 88.9 I 11 100.0	34 89.5
YES	0 0.0	į 3 <b>33.</b> 3	1 11.1 1 0 0.0	4 10.5
		*		
TOTAL RESPONSES	9 100.0	9 90.0	9 100.0 11 78.6	38 90.5
NO RESPONSE	0.0	1 10.0	0 0.0 3 21.4	4 9.5
NOT APPLICABLE	0 0.0	0 0.0	0 0.0 0 0.0	0 0.0
TOTALS	9	10	9 14 1	42

ALC ABSENT AGE 15-24 VS. ALC ABSENT AGE 25 &UP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	_
ALC ABSENT AGE 15-24 VS. ALC PRESNT AGE 15-24 NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	
ALC ABSENT AGE 25 &UP VS. ALC PRESNT AGE 25 &UP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	
ALC PRESNT AGE 15-24 VS. ALC PRESNT AGE 25 8UP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	•

### MARYLAND MEDICAL-LEGAL FOUNDATION. INC. ACCIDENT INVESTIGATION STUDY (1973-1974) FINAL REPORT TASK II

NON-FATAL RESPONSIBLE MALE DRIVERS (1968-1973)

0123 INVOLVE	EMENT IN	OTHER A	CCIDENTS	WHILE U	NDER INFLU	ENCE OF	ALCO	10L
		ALC ABSE	NT	I	ALC PRESNT	I	TOT	AL
RESPONSE	AGE 15	PCT AGE	25 AUP PCT	AGE 15	24 AGE 2 PCT N	5 SUP I	N	PCT
NO	8 10	0.0 I	4 66.7	6 8	5.7 1 6	75.0	24	82.8
YES	Ü	0.0 1	2 33.3	1 1	4.3 1 2	25.0	. 5	17.2
*****	 			<u> </u>				
TOTAL RESPONSES	8 8	8.9	6 60.0	7 7	7.8. 8	57.1	29	69.0
NO RESPONSE	1 1	1.1	4 40.0	2 2	2.2 6	42.9	13	31.0
NOT APPLICABLE	0	0.0	0.0	į o	0.0	0.0	0	0.0
TOTALS	9	1	0	9	14		42	
•	i,			4		4	•	•

#### TESTS OF SIGNIFICANCE

41248 TROUBLE WITH LAW AS A TEENAGER

	ALC	ABSENT	ALC PRESNT I	I TOTAL	
RESPONSE	AGE 15-24 N PCT	AGE 25 AUP	AGE 15-24 AGE 25 MUP IN PCT IN PCT I	N PCT	
NO	6 66.7	Į 5 71.4	3 33.3 1 3 37.5	17 51.5	
YES	3 <b>33,</b> 3	2 28.6	6 66.7 1 5 62.5 1	16 48.5	
TOTAL RESPONSES	9 100.0	7 70.0	9 100.e. 8 57.1 I	33 78.6	
NO RESPUNSE	0 0.6	3 30.0	0 0.0 6 42.9 1	9 21.4	
NOT APPLICABLE	0 0.0	0 0.0	0 0.0 0 0.0	0.0	
TOTALS	9	10	9 14 1	42	

ALC ADSENT AGE 15-24 VS. ALC ABSENT AGE 25 &UP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3
ALC ABSENT AGE 15-24 .VS. ALC PRESNT AGE 15-24 2 × 2 CHI-SGUARL = 0.888 FOR 1 DF
**************************************
**************************************

Q125 NUMBER OF TIMES IN TROUBLE WITH LAW (CONVICTIONS)

	I ALC ABSE			BSENT I ALC PRESNT					NT I TOTAL		
RESPONSE	AĞE N	15-24 PCT	AGE 2	5 &UP PCT	AGE N	15-24 PCT	AGE 2	5 SUP PCT	N	PCT	
0	5	62.5	į 3	50.0	2	28.6	Î S	28.6	12	42.9	
1	1	12.5	1	16.7	3	42.9	<u> </u>	42.9	8	28.6	
2	1	12.5	<u> </u>	16.7	i o	0.0	<u>į</u> 2	28.6	4	14.3	
3	U	0.0	i o	0.0	0	0.0	į o	0.0	0	0.0	
4 .	1	12.5	<u> </u>	16.7	0	0.0	į o	0.0	į 2	7.1	
5	0	0.0	0	0.0	0	0.0	į o	0.0	i o	0.0	
6	0	0.0	i o	0.0	1	14.3	į o	0.0	1	3,6	
7	0	0.0	i o	0.0	0	0.0	į o	0.0	0	0.0	
8	n	0.0	i o	0.0	1	14.3	į o	0.0	1	3.6	
9	0	0.0	t o	0.0	0	0.0	រុំ ០	0.0	0	0.0	
10	<u>u</u>	0.0	i o	0.0	o	0.0	į o	0.0	i o	0.0	
11 OR MORE	0	0.0	0	0.0	0	0.0	<u> </u>	0.0	į o	0.0	
*****									Î		
TOTAL RESPONSES	8	88.9	6	60.0	7	77.B	7	50.0	28	66.7	
NO RESPONSE	1	11.1	4	40.0	2	22.2	7	50.0	14	33.3	
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
TOTALS	9		10		9		14		42		
MEAN I		0.88		1.17		2.43		1.00	Ì	1.36	
S D		1.46	•	1.60		3.21		0.82	į I	1.93	

### TESTS OF SIGNIFICANCE

ALC ABSENT AGE 15-24 VS. ALC ABSENT AGE 25 &UF F(1, 12) = 0.126 ALC ABSENT AGE 15-24 VS. ALC PRESNT AGE 15-24 F(1, 13) = 1.529 ********************** ALC ABSENT AGE 25 8UP VS. ALC PRESNT AGE 25 8UP F(1, 11) = 0.059 ************************* ALC PRESNT AGE 15-24 VS. ALC PRESNT AGE 25 2UP F(1, 12) = 1.304 F(1, 12) = 1.304 ***************************

Q126 WAS SUBJECT EVER ARRESTED FOR DRINKING

1	ALC	ABSENT	ALC PRESNT I	TOTAL
RESPONSE	AGE 15-24 N PCT	AGE 25 &UP N PCT	AGE 15-24 AGE 25 &UP I N PCT N PCT I	N PCT
NO	9 100.0	I 5 71.4	5 55.6 I 7 70.0 I	26 74.3
YES	0.0	Î 2 28.6	4 44.4 1 3 30.0 1	9 25.7
****		*		
TOTAL RESPONSES	9 100.0	7 70.0	9 100.0 10 71.4	35 83.3
NO RESPONSE	0 0.0	3 30.0	0 0.0 4 28.6	7 16.7
NOT APPLICABLE	0.0	0 0.0	0 0.0 0 0.0	0 0.0
TOTALS	i 9 I	10	9 14	42

ALC ABSENT AGE 15-24 VS. ALC ABSENT AGE 25 SUP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	
ALC ABSENT AGE 15-24 VS. ALC PRESNT AGE 15-24 NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	
ALC ABSENT AGE 25 &UP VS. ALC PRESNT AGE 25 &UP NOT PERFORMED - EXPECTED FREQUENCY LESS THAN 3	
ALC PRESNT AGE 15-24 VS. ALC PRESNT AGE 25 &UP 2 X 2 CHI-SQUARE = 0.030 FOR 1 DF	

S12 NUMBER OF PREVIOUS SUSPENSIONS

		STE NO	PER U	r PREV	1000	USPENS	10113			
	I ALC ABSENT I					ALC	TOTAL			
RESPONSE	AGE N	15-24 PCT	AGE 2	5 AUP PCT	AGE N	15-24 PCT	AGE 2	5 AUP PCT	N	PCT
0	8	88.9	į 8	88.9	6	66.7	Į 8	57.1	30	73.2
1	1	11.1	į 1	11.1	1	11.1	‡ 3	21.4	,6	14.6
2	i u	0.0	į o	0.0	1	11.1	<b>į</b> 2	14.3	3	7.3
3	0	0.0	į o	0.0	0	0.0	į 1	7.1	1	2.4
4	į o	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
5	į o	0.0	į o	0.0	1	11.1	į o	0.0	1	2.4
6	į o	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
7	1 0	0.0	į o	0.0	į o	0.0	į o	0.0	0	0.0
દ	i o	0.0	į o	0.0	į o	0.0	į a	0.0	0	0.0
9	i o	0.0	į o	0.0	0	0.0	į o	0.0	į o	0.0
10	i o	0.0	Î O	0.0	0	0.0	į c	0.0	i o	0.0
11 OR MORE		0.0	Î O	0.0	0	0.0	i o	0.0	i o	0.0
TOTAL RESPONSES	Ĭ I 9	100.0	9	90.0	9	100.0	14	100.0	î Î 41	97.6
NO RESPONSE	0	0.0	1	10.0	0	0.0	0	0.0	į 1	2.4
NOT APPLICABLE	j 0	0.0	0	0.0	i 0	0.0	o	0.0	j o	0.0
TOTALS	i 9		10		j 9 I		14		Î 42 Î	
MEAN	l I I	0.11		0.11	I I I	0.89		0.71	l I I	0.49
S D	Ī	0.33		0.33	Ī	1.69		0.99	Ī	1.02

#### TESTS OF SIGNIFICANCE

S15	NUMBER	OF	SPEEDING	CONVICTIONS
		0.	0. 6.6.6.110	

***************************************	I	ALC	ABSENT		[ [	ALC	T	I TOTAL		
RESPONSE	AGE N	15-24 PCT	AGE 2	5 AUP PCT	AGE. N	15-24 PCT	AGE I	25 &UP PCT	N	PCT
0	j 6	66.7	I 3	33,3	3	33.3	Į 5	35.7	17	41.5
1	<b>i</b> 3	33.3	į 1	11.1	3	<b>33.</b> 3	į 3	21.4	10	24.4
2	Î O	0.0	į 4	44.4	1	11.1	į 3	21.4	8	19.5
3	į o	0.0	Î o	0.0	2	22.2	ļ 1	7.1	3	7.3
4	0 1	0.0	. ס י	0.0	0	0.0	i o	0.0	0	0.0
5	Î O	0.0	Î 1	11.1	0	0.0	<u>.</u> 1	7.1	2	4.9
6	i o	0.0	i 0	0.0	0	0.0	į o	0.0		0.0
7	Î o	0.0	į o	0.0	0	0.0	į o	0.0	O	0.0
ક	Î O	0.0	Î o	0.0	0	0.0	į 1	7.1	1	2.4
9	Î c	0.0	į o	0.0	0	0.0	Î o	0.0	0	0.0
10	į o	0.0	į o	0.0	0	0.0	i o	0.0	, o	0.0
11 OR MORE	i o	0.0	i o	0.0	0	0.0	i o	0.0	0	0.0
TOTAL RESPONSES	I 9	100.0	9	90.0	9	100.0	14	100.0	41	97.6
NO RESPONSE	Ü	0.0	1	10.0	0	0.0	0	0.0	1	2.4
NOT APPLICABLE	i o	0.0	0	0.0	0	0 . 6	0	0.0	. 0	0.0
TOTALS	i 9		10		9		14		42	***
MEAN	I I I	0.33		1.56	[	1.22		1.79		1.29
s D	Ī	0.50		1.59	Ì	1.20		2.29	Ì	1.67

	F(1, 16) =	ALC ABSENT AGE 25 &UP 4.840 ***********
ALC ABSENT	AGE 15-24 VS. $F(1, 16) =$	ALC PRESMT AGE 15-24 4.197
ALC ABSENT	AGE 25 &UP VS. F(1, 21) =	

S18 NUMBER OF PREVIOUS ACCIDENTS

	I ALC ABSENT				ALC		TOTAL			
RESPONSE	Î AGE Î N	15-24 PCT	AGE 2	5 AUP	AGE N	15-24 PCT	AGE N	25 AUP PCT	N	Pct
0	7	87.5	Į 5	55.6	5	55.6	Į 7	50.0	24	60.0
1	1	12.5	į 3	33.3	2	22.2	1 5	35.7	11	27.5
2	0	0.0	1	11.1	1	11.1	1 2	14.3	4	10.0
3	į o	0.0	į o	0.0	į o	0.0	į o	0.0	0	0.0
4	i o	0.0	i o	0.0	1	11.1	į o	0.0	,1	2.5
5	i o	0.0	į o	0.0	j o	0.0	į o	0.0	0	0.0
6	i o	0.0	į oʻ	0.0	0	0.0	į o	0.0	0	0.0
7 ,	i c	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
8	į o	0.0	į o	0.0	0	0.0	į o	0.0	0	0.0
9	Î O	0.0	į o	0.0	i o	0.0	į o	0.0	i o	0.0
10	0	0.0	į o	0.0	į o	0.0	į o	0.0	0	0.0
11 OR MORE	i o	0.0	Î O	0.0	0	0.0	i o	0.0		0.0
***	l I				[: [				Î Î	
TOTAL RESPONSES	I 6 I	88.9	9	90.0	[ 9 [	100.0	14	100.0	40	95.2
NO RESPONSE	1	11.1	1	10.0	0	0.0	0	0.0	į 2	4.8
NOT APPLICABLE	I 0 I	0.0	0	0.0	i o	0.0	0	0.0	i o	0.0
TOTALS	9		10	:	9		14		1 42	
MEAN	Į Į	0.13		0.56	I I	0.89		0.64	<u>I</u>	0.57
s D	İ	0.35		0.73	i	1.36		0.74	İ	0.86

### TESTS OF SIGNIFICANCE

S114 EXTENT OF DRINKING (REVISED ALCOHOLIC CLASSIFICATION 7/73)

***************************************	I ALC ABSENT I				ALC PRESNT				TOTAL	
RESPONSE	AGE N	15-24 PCT	AGE 2	5 &UP PCT	AGE.	15-24 PCT	AGE 2	5 AUP	N	PCT
ABSTAINER	2	22.2	į o	0.0	1	12.5	Į O	0.0	3	8.8
MILD SOCIAL	4	44.4	‡ ‡	57.1	2	25.0	į n	0.0	10	29.4
MODERATE SOCIAL	3	33.3	į 2	28.6	0	0.0	į	30.0	8	23.5
MOD/HEAVY SOC	0	0.0	ļ 1	14.3	1 4	50.0	į 3	30.0	8	23.5
HEAVY SUCIAL	C	Ο.ΰ	Î o	0.0	1	12.5	1 2	20.6	3	8.8
SPORADIC SINGE	ָרָ <u>ו</u>	0.0	į n	0.0	į o	0.0	į o	0.0	0	0.0
ALCOHOLIC	0	0.0	i o	0.0		Ü • Ü	i 2	20.0	2	5.9
TOTAL RESPONSES	9	100.0	7	70.0	I 8	88.9	10	71.4	34	81.0
NO RESPONSE	0	0.0	3	30.0	1	11.1	4	28.6	8	19.0
NOT APPLICABLE	0	0.0	0	0.0	i o	6.0	()	0.6	0	0.0
TCTALS	i 9		10		i 9		14		42	
MEAN		2.11		2.57	1 1 1	3.25		4.50	] ] †	3.18
s t	i	0 . 78		0.79	î	1.39		1.51	İ	1.46

#### TESTS OF SIGNIFICANCE